



College AND UNIVERSITY Business

OCTOBER 1951: Effective Staff Communication • Making Auxilliary Enterprises Pay • What is Academic Freedom? • Tips on Private College Financing • Food Service in 1951 • Campus Maintenance



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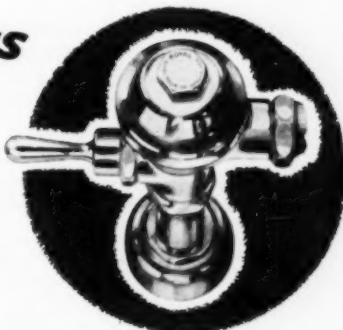
vators, and added moving stairways. Conveyor systems, more than a mile in total length, were installed for high speed and accurate distribution of mail and work forms. As are thousands of other expertly planned buildings, the new Dun & Bradstreet headquarters is completely equipped with SLOAN Flush VALVES—more evidence of preference that explains why...

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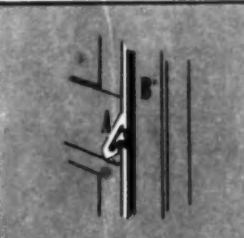
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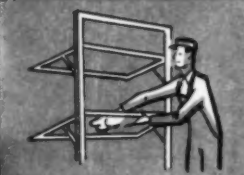
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Harry W. Manley

HARRY W. MANLEY, supervising accountant of the business office at the University of Illinois, outlines on page 19 what he considers to be fundamental considerations in establishing effective staff communications. Before entering college administrative work in 1946, he had worked for four years with a private firm of accountants in St. Louis, and prior to that had been chief accountant of a St. Louis industrial firm. His life is not all work, for he enjoys golf, has a flair for wearing plaid shirts, and will walk a mile for spareribs and sauerkraut. He is a good pianist, too, having played with a professional dance band before he got so intrigued with accounting. . . . GERARD BANKS, bursar of the College of Puget Sound, has a sincere conviction that college auxiliary enterprises should be self-supporting and gives reasons for this opinion on page 23. He has been with the Tacoma institution since 1946, having previously been assistant to the president of Centenary College of Louisiana.



Ernest M. Conrad

ERNEST M. CONRAD, assistant controller of the University of Washington, takes up the argument on page 27 for the nondistribution of general and plant expense in the preparation of college financial reports and accounting procedures. He was connected with a private accounting firm and later was auditor of a hardware company in Spokane before getting into college work in 1940 as manager of the Student Cooperative Association. He joined the University of Washington business office staff in 1944. . . . DUNCAN I. MCFADDEN, controller of Stanford University since 1945, on page 26 takes up the cudgel in behalf of the distribution of general and plant expense in college accounting as opposed to the position taken by Mr. Conrad. Before entering university work, Mr. McFadden was for nine years on the San Francisco staff of the accounting firm of Lybrand, Ross Bros. and Montgomery.



James L. Morrill

JAMES L. MORRILL, president of the University of Minnesota, comments on page 32 on academic freedom, a topic occupying the current attention of college administrators. Prior to accepting his present appointment in 1945, Dr. Morrill had been president of the University of Wyoming from 1942 to 1945 and vice president of Ohio State University from 1932 to 1941. Before entering college administrative work, he was in the newspaper business and at one time was city editor and acting managing editor of the *Cleveland Press*. . . . HENRY J. LONG, president of Greenville College in Illinois, suggests on page 30 some of the techniques to be employed in the financing of church related colleges. As is the case with many college presidents, Dr. Long travels a great deal in behalf of the institution, 40,000 miles a year being his average mileage. Though active in college affairs, he has indicated an interest in politics and has twice been a candidate for lieutenant governor of Illinois for the Prohibition party.

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COFFEE URNS



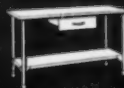
STEAM TABLES



FOOD CONVEYORS



SINKS



WORK TABLES

Questions and Answers

Housekeeping Standards

Question: Who should determine the housekeeping standards to be maintained in campus buildings—the physical plant superintendent or the business manager?—B.L.S. Mass.

ANSWER NO. 1: The phrasing of the question is somewhat unfortunate as it is rare indeed that any one person in an educational institution has the sole responsibility for setting standards of any sort. It is quite customary for housekeeping standards to be set cooperatively by four or five persons, each of whom represents a different point of view. The business manager undoubtedly will have much to say regarding the cost of such standards and the effect of housekeeping standards on the budget. The physical plant superintendent will have his say on the basis of personnel and cost as it affects his budget. The manager of residences, the person in particular charge of a building or group of buildings, and often the students themselves will all be called on to assist in establishing housekeeping standards. The housekeeping standards may vary on the same campus. It is unusual to have a single rigid housekeeping standard for all types of occupancy.

In the final analysis, if disagreement occurs the officer highest in the echelon must take the responsibility. If the operating standards established for the housekeeping are unsatisfactory to important groups in the institution it may be necessary for the president himself to become interested in the matter.

I do not think it is fair to answer this question categorically as there is no definite rule for assignment of such decision. It has been my experience that it is safer to assume that the duties of each officer are modified to fit the personality and the experience and judgment of the person occupying the position rather than the position dictating in every phase the responsibilities of such officer.—LESTER RIES, *superintendent of buildings and grounds, Oberlin College.*

ANSWER NO. 2: This is a \$64 question at some educational institutions. It is my belief that the physical plant

superintendent should determine housekeeping standards because it is his responsibility to maintain them. His budget will be submitted accordingly and this is when the business manager probably will enter the picture. I am sure the average superintendent will want to furnish high-grade service. If the business manager wants to lower the standards through the process of budget cutting, that is his privilege, of course, but he should then assume the responsibility for so doing. Usually the business manager also will want high standards, but lack of sufficient funds may force him to cut budgets. This is just "too bad," but it is probably the situation that prevails in most educational institutions.—A. F. GALLISTEL, *director of physical plant, University of Wisconsin.*

Commercial Films

Question: Are commercial industrial films used for instructional purposes in engineering colleges or departments in a university?—L.M.J. Colo.

ANSWER: Yes, though usually as supplementary aid to instruction. In our metallurgical courses we make generous use of films produced by Revere Copper & Brass Company and by U.S. Steel. In our technical drawing department, films are used as a primary means of instruction, taking the place of the instructor's lecture on the subject.—THEODORE LINDGREN, *director of visual education department, Illinois Institute of Technology.*

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill. Questions will be forwarded to leaders in appropriate college and university fields for authoritative replies. Answers will be published in forthcoming issues. No answers will be handled through correspondence.

Fraternity Relationship

Question: What relationship should the college business office have with fraternities and sororities?—M.L.K. Ohio.

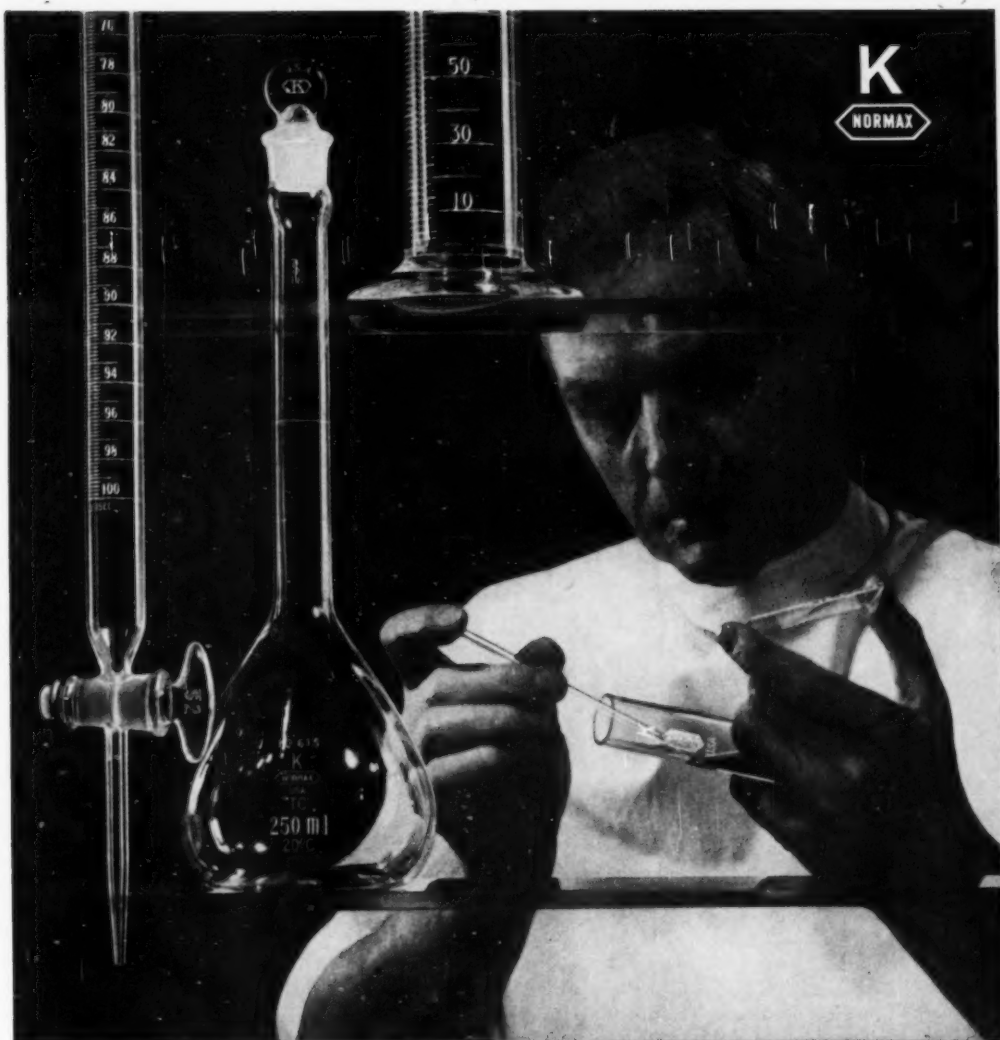
ANSWER: I can only add our own experience here at Northwestern University. Aside from the purely student personnel and discipline problems, the business office has all the contacts with the fraternities. Northwestern's fraternity houses in the main are on the campus. We, therefore, inspect them, do a large part of the maintenance work, insure them, and carry out all business relations with their corporations.

In addition to this, we have for some years, at the request of the fraternities, acted as a collecting agency. In other words, their payments are made to us. This has been very effective and keeps them from getting into delinquencies with their members.—H. L. WELLS, *vice president and business manager, Northwestern University.*

Handling Insurance Items

Question: How do you account for any expired insurance premiums as a matter of office routine or practice?—F.H. Ill.

ANSWER: Spreading insurance premiums, dividends from mutual insurance, refunds because of cancellation, and so forth, into monthly columns representing the life of the policies is both difficult and laborious. The accountant of a small college has better use for his time. It is easier to estimate the annual cost of insurance and to charge one-twelfth of such cost to insurance each month, then at the end of the fiscal year analyze all charges and credits to prepaid insurance and leave in that account the portion of the premiums that extend beyond the fiscal year. All dividends and refunds are credited to the fiscal year. When the total of unexpired premiums is determined an adjustment is made to the balance in the account, i.e., insurance is charged or credited with the adjustment. We find the adjustment is seldom large and this method saves a lot of time during the year.—PAUL B. MURPHY, *business manager, Clarkson College of Technology.*



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- 3 TELEVISION LOOK-PLUS-BOOK LEARNING IS EXPANDING.** The results of a questionnaire answered by school-teachers and administrators in the Cincinnati area showed: eighty-two per cent of educators favored putting television sets into public schools; sixty per cent of teachers said that television would be more widely used than radio in the future as an educational tool. Philadelphia has sixty public schools now equipped with television sets on which programs are received daily in the classrooms.



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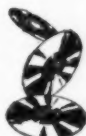
- 4 RADIO'S INSTRUCTIVE SERVICES FIND WIDE USE IN MODERN EDUCATION.** More and more schools are adapting radio services to curricular advantage. Classroom receivers bring in programs from the school system's own broadcast station or selected broadcasts from commercial stations.



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ABOVE: When seats are closed almost every foot of floor area is "recovered" for regular use.

LEFT: Medart "Two-Level" installation utilizes both balcony and gym floor for maximum audiences.

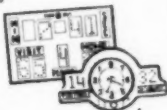
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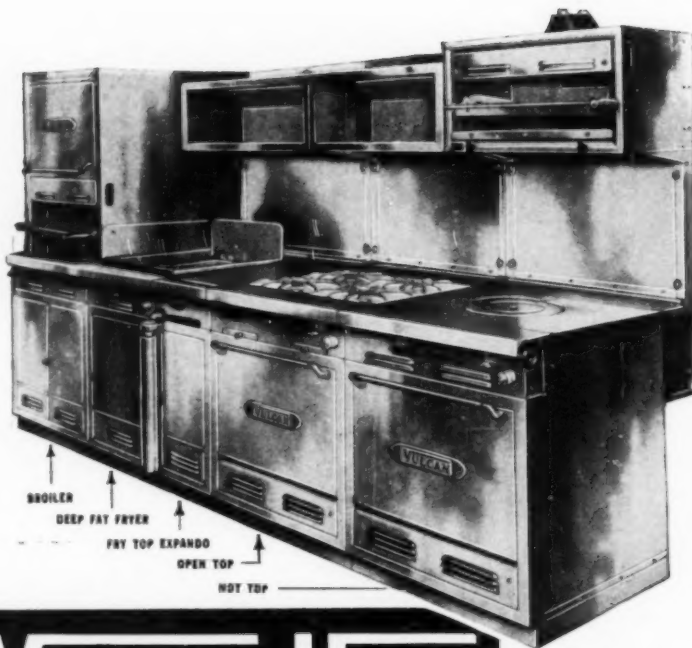
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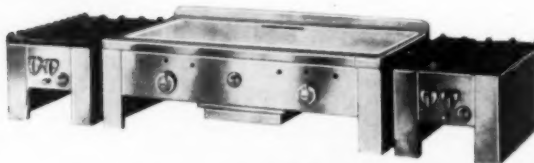
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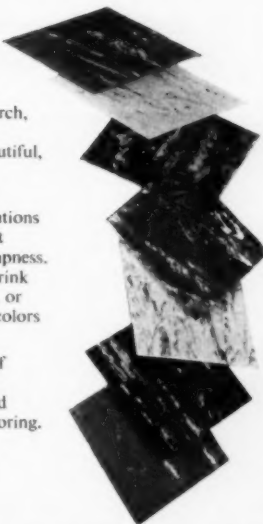
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SCHOLARSHIPS DO EDUCATION A GREAT DISSERVICE

HERMAN M. SHIPPS

Vice President and Director of University Relations
Ohio Wesleyan University, Delaware



PROBABLY NO QUESTION REGARDING ADMISSIONS is more difficult to answer, and no problem is more baffling than that of the granting of scholarships or student aid. Immediately on consideration of this question the following dilemma appears: Are these grants made to help a student get an education or to help a college get a student? Taking the second idea first, it is my opinion that granting scholarships is the poorest means of interesting students that has ever been devised and that it has done more disservice to the cause of education than any other factor. Price cutting is poor salesmanship.

Let me mention a few reasons why I believe this to be true. In the first place, offering to students who have no particular interest in your college a scholarship removes the interest of the student from getting an education and fixes his attention on getting a scholarship. It is like the sweet coed who looks at the size of the diamond ring offered without considering who is making the offer.

In the second place, offering scholarships induces students to think more highly of themselves than they ought to think. It is my belief that education is successful in direct proportion to the humility of the student who comes as a seeker for knowledge, and nothing is more devastating in a class than the student who knows all the answers and has been paid to come to college to tell the college what the answers are.

A third reason is that no student induced to come by means of a scholarship ever gets as much as he thinks he should have. He is constantly thinking that the college over in the next town would have given him more, and therefore he holds the college, which should be his alma mater, responsible for the fact that he is being underpaid.

Fourth, scholarship offers are the means whereby the college contributes to the commonly accepted idea of the day that the government owes every man a living. While many students seem to feel that someone owes them a scholarship and will keep on shopping around until they find a suitable offer, perhaps it is part of our character building responsibility

to refuse to offer this security without responsibility, which can too easily become the pattern of life for many individuals.

Fifth, giving scholarships unless they are endowed is taking money out of the coffers of the college that should be used for other purposes. It should not be necessary to tell business managers that you can't make tuition grants without showing each item as a definite operating loss.

Sixth, if a college has endowed funds for scholarships in almost every case that money was given by persons who saved carefully and endowed scholarships in order to help students who need help, and not to give to students who are professional scholarship hunters.

Then how are we to approach this matter of scholarships? My attitude would be that we should say to the student, "Choose your college. Any good college can help a good student needing help and willing to help himself." When he decides upon our college, if he is a good student, we'll recommend and needing help and willing to help himself, we should go all out to help him.

Any college that has a right to exist has something valuable and something unique to offer to its students. It has something that good students will like. A modest presentation and a show of friendly interest in the student as a person will be far more effective than a show of something that a college cannot really produce. We all know of businesses in which the sales are better than the service. Any business can operate that way during a seller's market, but eventually the policy must be changed or the business must move its location. Colleges cannot move with the same facility that a business can. If the college is not as good as the field men say it is, eventually people will find it out and it will take a long time to live down the bad reputation built up.

We are all in this business together. It is a business. If we forget that, we may lose our capital. It is also an educational program. If we forget that, we may lose our souls.

Looking Forward

The Camel in the Tent

IN RECENT YEARS UNCLE SAM HAS SHOWN A GROWING curiosity in what is going on under the higher education tent, particularly in regard to the tax exemption status of some of its auxiliary enterprises. Evidence at this time indicates that the days of higher education's traditional tax immunity status may be numbered.

The inroads made have been minor, in many cases, but the pattern is being established. In some states the payment of sales tax is required of colleges, and in others there are serious threats to the operation of income producing properties, irrespective of the fact that such income is devoted to the educational program and not to the financial benefit of a specific individual.

The Bureau of Internal Revenue is the camel that threatens to push the intellectual pilgrim out of the tent. College administrators had better find out "what's going on in taxes" so that they can be prepared for the next move by tax authorities. To procrastinate may mean an invitation to a restricted future in fiscal operations.

The committee of taxation and fiscal reporting of the American Council on Education has been following tax developments closely, but it needs the support of all who are concerned with the federal tendency to put in jeopardy higher education's tax exemption status.

"Thou Shalt Not . . ."

THE MORALS OF THE AMERICAN PUBLIC, AND TO A large degree those of its colleges, have come in for severe criticism within recent weeks. In the spirit of the season, Ernest C. Colwell, former president of the University of Chicago, addressed delegates to the Higher Education Conference at Scarritt College and suggested the following 10 commandments for college presidents:

1. "Thou shalt not be afraid; neither of the alumni, nor of the board, nor of anything that is in the heavens above or the earth beneath or the waters under the earth—caring neither for a quiet life nor for public praise, but only for sound learning that will destroy the vicious ignorance and prejudice which today darken the minds of our people.

2. "Thou shalt not make unto thee a graven image of the chairman of the board, nor of the governor of the state, nor shalt thou bow the knee before legislative committees that would limit or destroy that freedom of the mind without which all other freedoms are brutalized.

3. "Thou shalt not take the name of the Lord in vain,

for the Lord will not hold him guiltless that taketh his name in vain; but thou shalt include religion and morals in what is studied and in what is taught.

4. "Each semester shalt thou labor—thou, and thy faculty, and thy student body; thou shalt not make a carnival out of the works of the mind.

5. "Thou shalt not covet a championship football team, nor the largest student body, nor the largest stadium, nor the largest number of unused library books.

6. "Thou shalt not kill the intellectual curiosity of either student or teacher by substituting empty routines for the excitement of learning.

7. "Thou shalt not commit 'adultery,' but to thine own institution and its distinctive function thou shalt be true. Thou shalt not tolerate degradation—neither of the faculty nor of the course of study.

8. "Thou shalt not steal thy neighbor's quarterback, nor the students that should be his, nor shalt thou take from any source, money to be squandered upon an incompetent staff and wasted for the prestige of your institution.

9. "Thou shalt not forswear thyself—not with alumni, nor with donors, nor with the board; but thou shalt perform thine oaths to lead the faculty in the pursuit of that truth which makes men free.

10. "Thou shalt honor sound learning and attack shoddiness and pretension that thy name may be remembered in the company of learned men."

Some New Books

A COLLEGE ADMINISTRATOR OWES IT TO HIMSELF TO be alert to new books or publications that may aid in the improvement of his own job performance. Here are two that have been recently published:

For business managers, a small book entitled "How to Raise Funds" by Herbert J. Burgstahler, chancellor of Ohio Wesleyan University, has helpful ideas for those charged with financial solicitation. The book has been published by the board of education of the Methodist Church, Nashville, Tenn.

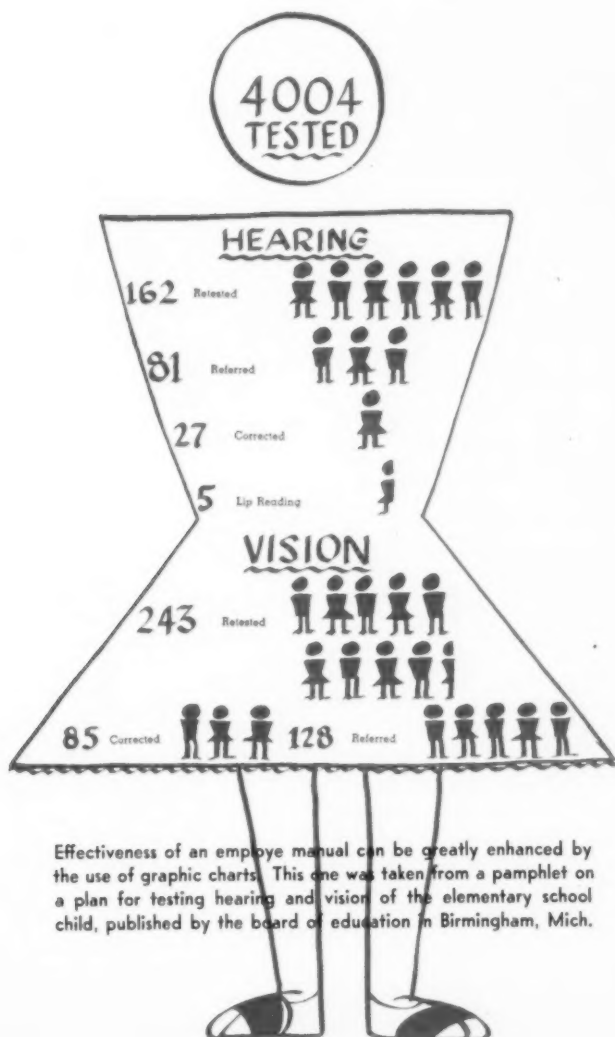
For food service directors, the second edition of Margaret E. Terrell's book on "Large Quantity Recipes" is now available from J. B. Lippincott & Co. All recipes in this edition have been tested for desirable menu selections, ordinary budgeting, typical production facilities, palatability and attractive appearance. Miss Terrell is professor of home economics and director of university dining halls at the University of Washington in Seattle.

Management will be able to manage more successfully

with a **BUSINESS PROCEDURAL MANUAL**

HARRY W. MANLEY

Supervising Accountant
University of Illinois



IF THERE IS ANY ONE PROBLEM THAT is giving the college or university business officer a bad time, it's the problem of keeping his working force well informed, of transmitting to his operating personnel the information needed to carry on the work, and of keeping his employees satisfied in their jobs. In other words, his problem is one of communications.

He talks communications to his staff; he talks it in his society meetings; he probably talks it to himself. The word is almost worn threadbare.

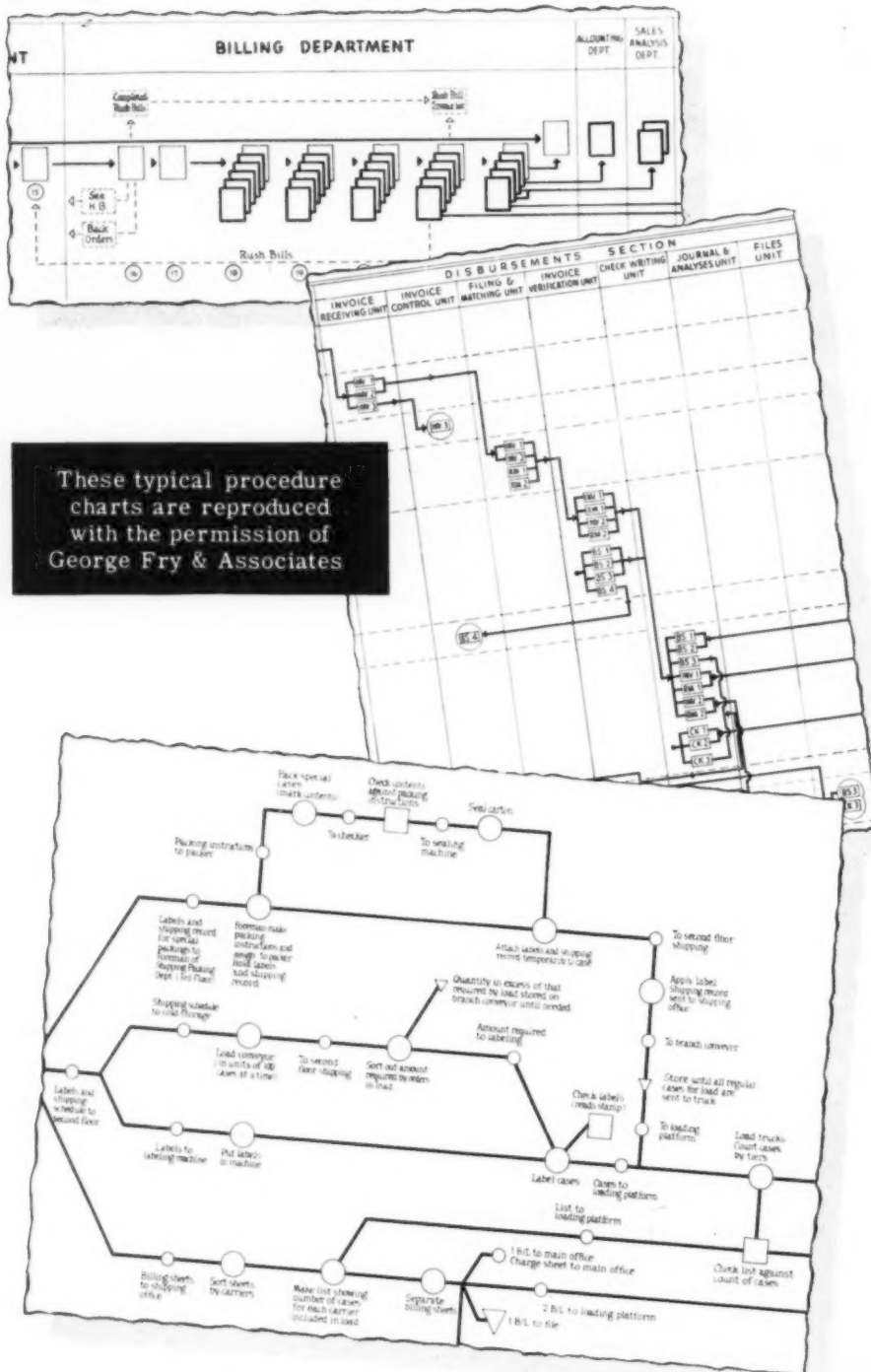
He becomes fascinated by the many technics of trying to reach his people. He mounts the soap box like the silver-tongued Bryan. He pens prose in the manner of Tom Paine. He pleads, thumps his chest, and does many of the other things that are done to keep in touch with his people.

But too often, in spite of his good intentions, his audience yawns and replies, "I see you talking but I can't hear a thing you say."

He is disconcerted. He looks around for new formulas. "I'm talking loud enough," he complains. "Why don't people listen?"

Why don't people listen? There are many reasons why. They could be disinterested. They could be too busy. They could be dissatisfied. But I do not believe that they are not listening. They don't understand what they hear, and usually there is no adequate means available for explaining to them the meaning of what has been said.

At one time the business officer could call all the people who worked for him by their first names. He could ask about the new baby, he could remember birthdays, and more important he could get his message to them in person. But alas, those days are gone. Our country has grown and with it our colleges and univer-



sities. And the business officer has lost touch with his people. No longer can he direct the expanded operations by word of mouth. He must find some other means.

The University of Illinois is feeling its way along toward some concrete results in this business of communications. How are we developing our program? How are we carrying it on? Who is responsible for it? How do we evaluate it? Our program consists of a business procedure manual.

A business procedure manual program usually includes one or more volumes of general instructions containing an outline of the organization plan, statements of policy, and descriptions of procedure. Many times a separate manual is maintained for each of these three subjects, but we at the University of Illinois have included all of them in one manual. We did this because we felt it would be difficult enough keeping up one manual without trying to keep up two or three. We reasoned further that if the person using the manual could find the policy, procedure and organization information in one place, he would be more likely to have a full understanding of what he was doing and consequently do a better job.

OF PRACTICAL VALUE

The extent to which business procedure manuals are used should give some indication of their practical value. Conditions of the past few years have accentuated their need.

What are these needs that office manuals are designed to meet? What purposes do they serve? Why have a manual at all?

To answer these questions we must go back to the business operations themselves; to the network of clerical processes that is so much a part of all business operations; to the workers who are engaged in these clerical activities; to the clerks, stenographers, bookkeepers, accountants, storekeepers, cashiers, supervisors and many others. These workers are engaged in activities which many people not familiar with business operations are quick to disapprove of as "red tape," but without which a university, or any other business for that matter, could not function.

These clerical procedures are the means by which all recurrent action is initiated, carried forward, controlled and stopped. It is through forecasting and budgeting procedures that finan-

cial and operating plans are developed; through purchasing procedures that materials are procured; through employment procedures that the work force is recruited and utilized; through stock control procedures that the investment in inventories is reduced and obsolescence is minimized; through accounting procedures that the information required for the control of budgets, costs and assets is gathered, summarized and reported.

These are only a few of the activities carried on day after day in the business operations of a university, but they offer proof of the fact that procedures are the basic tools which make it possible for management to manage. They are the mechanism through which action and control are achieved. They are the traffic laws and signals governing the form, the direction and rate of movement, the stopping places, the ultimate destination of each instruction and piece of information through which a university functions. Procedures are the basic tools that make it possible for management to manage.

And yet, in spite of their importance, so many times there is little or no attention given to their publication. They are passed on from one person to another by word of mouth. They are left to be performed at the discretion of the worker. Other times too much attention is paid to them by too many people. Everyone writes procedures about everything. There is no central control, and confusion is the order of the day.

If business procedures are to be effectively executed in accordance with established policies, we must tell our operating personnel what the policy is, who is to do the work, and how the work is to be done. We must give our employees this information in a form that is easily understood and is always available. We must provide them with adequate instructions by furnishing them with a comprehensive procedure manual.

The starting point in developing a manual is the assignment of responsibility. This responsibility should be centralized in one person, and all material cleared through him. He should make recommendations as to the subjects to be covered, gather the information at the source, prepare the rough drafts, present the rough drafts to the persons concerned for their review and comment, and present the final draft to the chief executive for

approval. After approval, he should arrange for publication and distribution.

At the University of Illinois this work is performed by personnel in the internal auditing division of the business office under the direction of the controller in his rôle as the chief business officer.

This is practical and expedient in our case because our manual covers the business operations on a universitywide basis. Our coverage in this one manual is of value to all personnel throughout the university. For example, information can be obtained about such matters as transfers, vacations, leaves of absence, filling out purchase requisitions, accounting for equipment, obtaining heat in offices on Sundays and holidays, and getting expenses paid to out-of-town meetings or conventions.

ASSIGN RESPONSIBILITY

Some colleges and universities may find it desirable to assign this responsibility on the basis of the subject matter. For example, if the contents consist chiefly of matter relating to personnel, the personnel administrator should direct the work, or if it relates chiefly to finances, the finance officer should direct the work.

The manual work was assigned to the internal auditing division at Illinois for several reasons: (1) The internal auditors have access to all university records; (2) they are always aware of changes in policy and procedure that have been made or are contemplated; (3) they are in an excellent position to promote the use of the manual, and (4) they are also in a position to evaluate the entire manual program.

The next step in preparation is the selection and collection of the material to be included. This may be done in one of two ways: by a committee appointed for the purpose or by an individual assigned to the work. At Illinois the special assignment method was used rather than the committee approach.

The first thing we did was to set up a tentative index consisting of about 90 general topics. A copy of this index was given to the various department heads and supervisory personnel for their comments and, as a result, all but 14 of the subjects were eliminated.

We then went directly to the source to get all the information needed. We

studied and analyzed the information obtained, got approval for minor improvements in procedures that could be made without delaying publication, and then prepared rough drafts. The rough drafts were presented to the department heads concerned for review, comments and return. In cases in which comments were numerous—and in many cases they were—we prepared as many as four rough drafts before we finally got one good enough to meet the approval of the controller.

In preparing the material for the manual, major consideration was given to getting people to read and use it, and we directed all our efforts toward that objective. Devices were employed to lighten the text and hold the attention of the reader. The style was formalized so as to give the pages of reading matter a clear, crisp and dignified appearance.

The sentence length was varied and punctuation used freely to eliminate confusion in meaning, point out the right direction of thought, and avoid monotony. Paragraphs were shortened and subheadings used frequently to make it easy for the reader to start at any place in the manual.

PRINTED PAGE MORE READABLE

Printing of the manual added to its appearance and increased its effectiveness. We reasoned that the printed page looks neater, is easier to read, and would be read oftener than a mimeographed page.

We also spent much time in the actual writing and rewriting of the procedural instructions. We found out one thing for sure—that it isn't nearly as easy to write "easy to read instructions" as it is to read them.

Since most of my time was and is now being spent in writing procedures, I should like to offer, for what they may be worth, a few of the practices that have helped me in this work.

While writing I try to think continuously about the person who will read what I am writing. I ask myself such questions as "Who is the person who will read this? How much does he know about this subject? How would I tell him about it in conversation? What questions would he ask me?"

I usually start out by preparing an outline of main headings and subheadings and then study the outline, eliminate unnecessary points, combine related ones, and then line them up in logical sequence.

While I endeavor to use simple sentences and words to make the thought clearer, there are times when I find my sentences becoming involved, tedious and monotonous. When this happens I get out my wife's cookbook and read a few simple instructions. "Sift one cup of flour two times. Blend, do not beat, the ingredients." This usually gets me back in the groove.

After the first rough draft has been completed, I check every sentence and almost every word. I ask myself "Is it necessary? Does it say exactly what I mean? Could it be misunderstood?"

Another excellent manual technic is the presentation of instructions in graphic form. Most persons analyzing procedures and preparing written instructions make up flow charts of existing procedures mostly for the purpose of trying to classify a mass of details in their own mind. These charts can in some cases be developed and simplified so that they can be used in the manual. Many times charts will enable the user of the manual to grasp readily a complex procedure.

Another advantage of charted procedures is their compactness. I have seen a one-page chart portray a procedure that in narrative form covered 11 pages. Other types of visual presentation that may be used are sketches, diagrams and copies of forms.

The final and probably the most important requisite to make a manual worth while is keeping it up to date. A manual cannot be a little bit obsolete any more than a person can be a little bit dead. Inaccurate information often is worse than none at all. After one or two wrong answers from this cause, the employee is quick to lose confidence in the manual as a source of information, and it soon becomes an office ornament rather than an effective tool of management.

The physical characteristics of the manual, such as the type of binder, the arrangement of instructions within the manual, and the provision of indexes, will help make it easier to read and to revise. It is hardly necessary to say that the binder should be

of the loose-leaf type so that revisions and additions can be easily inserted.

Within the binder, instructions can be arranged either in the sequence of publication or in groups covering related subjects. While from the standpoint of the person preparing the manual the arrangement in sequence of publication is easier, arrangement by subject is far better for the user.

At the University of Illinois we used the latter method because: (1) Under a subject arrangement, instructions that are cross-referenced are usually located close or next to each other; (2) it is easier to remember the major groupings, and (3) one can refer to the manual more easily.

Two other features of a well designed manual are tab dividers and indexes. Both facilitate reference and therefore increase the manual's use.

DISTRIBUTION IMPORTANT

An important phase of our program was getting proper distribution of the manuals and promoting their use. A manual was given to each dean, director and administrative head, and they were asked to designate other personnel in their departments who should have copies. Simultaneously with the distribution of the manual, a news release was issued to the local newspapers. This further aided in bringing the manual to the attention of the staff. Our internal auditing staff promotes the use of the manual whenever convenient by referring departmental personnel to it at the time of an audit.

Several times the question has arisen as to whether our manual program was worth the time and effort expended on it. We feel it is worth every ounce of effort put into it because it provides complete circulation of top management's policies and greater consistency in their application; it clarifies the employees' rôle in each activity; it helps obtain uniformity in and standardization of practices; it helps avoid friction and misunderstandings and promotes coordination; it provides a method of follow-through on the employee training program, and it provides an authoritative reference guide that stays on the job. There are many other benefits.

Our manual program does not provide a solution to all of our problems. However, it goes a long way in getting the word all the way down the line, and in establishing coordination of effort between individuals and groups.





SODA FOUNTAIN-GRILL AT UNIVERSITY OF FLORIDA

Making AUXILIARY ENTERPRISES pay

AN AUXILIARY ENTERPRISE GENERALLY is thought of as being any commercial activity conducted by a college or university that is not essential to the educational process. This is a fairly broad definition. It may include any activity other than the basic ones of administration, instruction, conduct of a library, and operation and maintenance of the physical plant. It is inconceivable that a college can dispense with any of the last named activities and yet continue to function as an institution of higher learning.

Certain activities are closely related to the educational process. While

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not essential, yet they contribute to the success of the school as an enterprise. Let us consider each separately.

The conduct of residence halls is a natural outgrowth of the basic needs of the liberal arts college. While some colleges may not have residence halls and yet are considered good colleges, they are seriously handicapped in performing their true function. That function is the development of the total personality; in doing this, there is no

substitute for a healthy campus and community life such as is fostered and encouraged by one or more well run residence halls.

If endowment funds or funds functioning as endowment are used in the construction of an institution's residence halls, they must be operated in such a way as to be able to give to the endowment fund a reasonable return on the investment. This is the primary obligation. A second obligation, almost equal in importance to the first, is to operate the halls in such a way that the endowment investment can be amortized in a reasonable period.

These two cardinal principles are applicable not only to the operation of residence halls but to the operation of any other auxiliary activity in which endowment or other nonexpendable funds have been utilized.

Those institutions that fail to make provision for the aforementioned requirements in the operation of auxiliary enterprises are proving recreant to the trust reposed in them by the donors who contributed to their endowment funds. How can one or more residence halls be said to be paying their way if these two obligations, where applicable, are not met?

However, it may be that institutions having endowment funds invested in residence halls represent isolated cases and that in most instances funds put into dormitories were appropriated or collected specifically for that purpose. In such cases, it is my opinion that the operation of the dormitories need not be conducted in such a way as to require the payment of an interest return on the capital invested.

One may argue that an institution should have a sinking fund to replace the dormitories when they become obsolete and untenable in 40 or 50 years. However, such an argument assumes that sources for new capital funds will be nonexistent at that time and that it is the obligation of the present generation to provide the education facilities for the persons of two to three genera-

tions hence. Both of these assumptions may be false.

How does one make residence halls pay their way? First, by setting residence fees that provide adequate income, and by keeping costs within this income. The fees one should charge for occupancy depend upon the original unit cost of the structure, the proportion of service employees to the number of residents, and the over-all costs applicable to a boarding student at the institution.

ACCOUNTING PRACTICES VARY

Accounting practices with regard to residence halls and other auxiliary enterprises are so varied as to make comparison of figures between comparable institutions almost meaningless. All direct costs should be charged to the respective halls or to residence halls as a group. These costs certainly include the utilities. Several questions arise here on which there is little unanimity of opinion. Should a proportion of the general costs of operation and maintenance be charged to residence halls, and, for that matter, to each auxiliary enterprise? The answer depends upon the size of the accounting system. In most cases the theoretical answer is "yes" but the practical answer is "no." At most small colleges the complete distribution of all costs on a correct accounting basis as called for in theory would necessitate

an accounting system much too large and costly for the good of the institution. At no institution should there be more accounting than is necessary for the administration to make wise and intelligent decisions, and there should be no more accounting than the administration will make use of to that end.

A second question arises: "Should a proportion of general administrative costs be charged to auxiliary enterprises?" If doing so will enable the administration to make wiser decisions, the answer is "yes." Otherwise, it is "no."

Whenever needed items of maintenance are deferred, sometimes residence halls can be made to show a profit when in reality they are being operated at a loss. In residence halls, there are as many items to go wrong and to need servicing as there are in one's own home. Many of these items are carefully avoided by the custodian and the department of buildings and grounds. As a consequence, they accumulate.

The next most logical auxiliary enterprise in which a college might rightfully engage is the provision for food services to resident and nonresident students. These services take the form of dining halls, cafeterias, fountains and snack bars. The most important advice I would give any business officer who wants these services to pay is



The bookstore is a perennial money-maker at most colleges. Pictured at the left is the trade book area at the new Student Service Center at the University of Florida.

to employ a competent dietitian or manager. Even in the smaller institutions, where the business officer himself may be responsible for the business management of such services, he needs the assistance of a trained dietitian.

The provision for food services is not strictly an economic operation. Even at institutions where boarding is compulsory upon resident students, the quickest way to lose money in a food operation is to serve poorly prepared and unpalatable food. My advice to any business manager who is not satisfied with his food service operation is to employ a member of the American Dietetic Association and turn the whole operation over to her.

I come now to that perennial money-maker at most colleges—the bookstore. The easiest way to ensure a paying operation is to get a good manager. Since textbooks, the principal line of merchandise, are sold at list price, with a publisher's discount of 20 per cent, the problem here is to keep expenses to a minimum and to guard against doing favors for too many people.

DO NOT OVERSTOCK

Avoid extending credit to anyone other than the federal government. Treat faculty and students alike in this respect. If, after this is done, the margin of profit is still too low, perhaps your store is carrying too many items and too many lines of merchandise. Some bookstores try to become department stores. When a customer walks in and asks for something the store doesn't have, don't take that as a signal to stock that item. Stock only those lines of merchandise that will meet the needs of a considerable number of persons on the campus. Our bookstore manager is the most efficient operator on our campus. On a gross business of \$100,000 last year, she netted a profit of \$13,000 after all expenses, excluding rent.

There is one auxiliary activity with whose financial operation I have wrestled for 20 years, with indifferent success. Sometimes I imagine that I am winning. At other times I know that athletics is winning. In discussing this activity, let me assume that in the small college the control of this activity is still vested in the institution. Then your institution can sustain either of two relationships to intercollegiate athletics. Either it is an integral part of your department of physical education, in which case the accounting for its activities may not be differentiated

from that for physical education, or its operations have been separated from instructional activities, with separate accounts maintained for it in the business office. Only in the latter situation can an institution know with certainty what it is expending upon intercollegiate athletics.

I wish I had some magic formula for making intercollegiate athletics pay. I do not know of any college anywhere that participates on an intercollegiate basis in the four major sports of football, basketball, baseball and track, and in the minor sports of tennis, swimming and golf, without sustaining a considerable athletic deficit that must be met by revenues from other auxiliary enterprises or from academic fees.

In thinking of athletics, you must distinguish between three different types of expenses. First, there are the direct costs, including guarantees. Then come the subsidies in the form of free tuition, room, board, books and, in some cases, even spending money. Lastly, one must consider the salaries of those coaches who do little or no teaching in the physical education department.

Recently I made a study of the financial operation of intercollegiate athletics at our institution over the last four years. In football, the percentage of direct costs that have been covered by direct income have been as follows: 47, 61, 37 and 36. Such costs have averaged \$20,000 a year. In basketball, income has covered the following percentages of direct costs: 45, 45, 54 and 64. Thus, in basketball we are making some progress, while in football we are losing ground financially. The other sports of baseball, track, tennis, golf and swimming bring in no income, so the \$6000 expended upon them must be met by revenues from other sources. This is the experience of a college with an enrollment of 1500.

I also made some studies of attendance records. On the average, 29 per cent of our students attended each football game last fall; only 24 per cent attended the average basketball game. One may reasonably ask: "For whom are we staging these expensive sports spectacles?" Could it be for the townspeople, the trustees and the faculty, or for the students?

In regard to subsidies given students because of their athletic prowess and ability, I find that you can put little credence in the statements or figures that issue from any institution regard-

ing this matter. I hardly trust those from my own institution. During the four-year period referred to at my own institution, 60 persons on the average, or 4 per cent of the student body, have been given free tuition to come to the institution to play football or basketball. If, as a business manager, you make the mistake of counting those persons in your enrollment estimate for budget purposes, the fact that you get no revenue from them can work havoc with the budget.

I have yet to find a school conducting its intercollegiate athletics on a simon-pure amateur basis. Even if you tell me that your school is doing just that, I won't believe you.

Out of the great welter of facts and figures that I have gathered at my institution for my own use, I have been able to draw only one conclusion that can be said to be favorable. It appears that if we should discontinue football and emphasize the other sports, with the help of our athletic fee from students, we could bring direct costs to within \$2000 of meeting direct income, or vice versa. Whether that is desirable in the light of the general importance attached to a strong athletic program is something I would do better not to discuss.

ORGANIZED FOR SERVICE

A college is not a profit-making institution. It is organized for the sole purpose of providing educational service at a total cost commensurate with the quality of the service it seeks to give. The worth of auxiliary enterprises lies in the contribution each can make toward the attainment of an institution's educational objective. Few will take issue with anyone who insists that each such enterprise should be operated without loss, so that it does not drain off academic or other revenues that should be utilized in the instructional program.

However, there is much to be said against straining to make any auxiliary enterprise yield too great a profit. This has the effect of increasing the total costs at an institution to such an extent that many worthy students may be prevented from attending the institution and availing themselves of its educational advantages. Rates charged for services rendered by auxiliary enterprises can be set in such a way as deliberately to attract students to the institution, and this can be done without subjecting the operation to an undue risk of loss.

The case for **DISTRIBUTION** of General and Plant Expense

ANY DISCUSSION OF THE DISTRIBUTION of proration of general and plant expense must necessarily imply that the basic classification of expense is functional rather than natural. Functional classification is the arrangement or "classification of expenditures according to the general end or purpose that the work engaged in has in view, e.g. administration, instruction, research, extension, library, operation and maintenance of physical plant."*

It has been argued by many persons connected with colleges and universities, particularly by educators, that to prorate general, administrative and plant expense to the instructional and other basic functions is an added bookkeeping and accounting expense and serves no real purpose. Even if it is admitted that the figures developed would be "interesting" and "nice to have," it is pointed out that the money spent for bookkeeping and accounting would serve our purpose better if channeled into more thorough instruction or research. Or the business manager will argue that a higher degree of plant maintenance is more justified than a bunch of 5's and 6's and 7's which come out of a calculator through the use of some "crazy" formula and which are never understood and soon thrown away.

Yet, how often have you been asked to furnish statistics showing the cost per student in a particular department or school? Or how many times have the legislators, trustees, administrators, faculty, students or alumni asked how much of a burden the medical school or the home economics department was on the rest of the university?

These questions or demands do not come regularly or often, but when they do, it is sometimes assumed that we need only initial the request and turn it over to a bookkeeper or clerk who will pull a dusty ledger from a shelf in

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the vault, turn to page 265 and copy the figures. When we try to explain how much of a job it would be to get the desired information, we often hear "Oh, don't bother with the pennies—I don't care if it balances—I just want approximate figures."

Stanford University is beginning a drive to raise funds so that the medical school may be less of a drain on the general endowment of the university. I was asked to determine the cost of medical instruction back to 1912. After considerable work, I obtained the figures back to 1920, the



date Ernie Erwin changed the expense classification to a functional one. Prior to that time one of the principal expense accounts was "Professors' Salaries" with no further breakdown. I did not have the time or the basis for distribution of most of the general, administrative and plant expense, so the result did not show the true burden of the medical school.

John Dale Russell, in his book "The Finance of Higher Education," writes: "The process of distributing unallocated overhead charges is perhaps the core of the problem of cost accounting in commercial enterprises. Because of the necessity of having each production unit carry its own expenses and produce a profit, elaborate rules

have been worked out in well managed commercial cost accounting systems for making a just apportionment of overhead expenses. Inasmuch as educational institutions are operated on a nonprofit-making basis, the problem of cost accounting in colleges has not attained the significance accorded it in commercial enterprises, and little attention has been given to the methods of allocating overhead expenses."

There are times when it is advisable to be able to develop unit costs, and perhaps it might be advantageous to determine them regularly as a part of our accounting routine. Mr. Russell believes we should, for he says: "It is the considered judgment of the writer that the calculation of unit-expenditure data has a distinct place in the administration of higher institutions. The data must, of course, be treated somewhat cautiously, but this is true of almost every kind of factual data used in administering a college or university. Unit costs cannot be considered a substitute for administrative intelligence. In the future, as the financial reports of institutions begin to take on a larger measure of uniformity than they have displayed in the past, an increased use of unit-expenditure data may be expected, and the result may well be an improved efficiency in the operation of American colleges and universities."

If you agree with Mr. Russell that unit costs should have a place in administration or if you believe that we should be ready to develop selected unit costs whenever they are called for, then it is necessary that you be prepared to distribute general, administrative and plant expense, for unit costs will be meaningless if only direct costs are used as a base.

Some of us occasionally determine the cost of educating a student for one year and use the figures in promotional matter to encourage gift support. Although the result is a unit

(Continued on Page 28)

*From a paper presented at the meeting of the Western Association of College and University Business Officers, 1951.

*Financial Reports for Colleges and Universities.

The case for **NONDISTRIBUTION**

of General and Plant Expense

CLASSIFICATION OF EXPENDITURES under the headings of general expense and of plant expense probably are treated very much the same by most colleges and universities. However, in order that there may be a clear understanding of the items under discussion, I shall review some of the expenses listed under these headings as recommended by the National Committee on Standard Reports for Institutions of Higher Education.

Under general expense are listed such items as: alumni; auditing; commencement; convocations; diplomas; employer insurance and retirement contributions; general lectures; general publications; health service; information office; legal expense; postage; publicity; student activities; employment office, and telephone.

Under the heading of plant expense are listed: plant administration; janitorial service; repair of buildings; repair of general furniture and other general equipment; care and maintenance of grounds; heat, light, power, water and gas, and police and watchmen.

The foregoing items of expense are common to all schools and, while there may be some variance in classifications, I am sure that we all have them in our records. Why do we accumulate these items of expenditure in our books? The purpose, I am confident, is to make an accurate and intelligent record of the disposition of the funds for which the institution is accountable and to facilitate administrative control. In the light of these objectives, of what value would be the distribution of general and plant expense?

Let's discuss the items of general expense first. For example, suppose we take the account called General Publications. At the University of Washington we publish annually a university catalog, issuing 30,000

From a paper presented at the meeting of the Western Association of College and University Business Officers, 1951.

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copies at a cost of \$13,000. Now we could, if we wished, distribute this cost throughout the university by charging it to the departments covered in the catalog. We could keep a record of the time spent and material used in printing the curriculum for each department and charge that department accordingly, or we could, by a simpler method, allocate the cost of the catalog on the basis of the number of pages used by each department. Suppose that we did make such a distribution, what would we have accomplished? The departments might become aware of the cost of publishing our catalog, but I seriously doubt if this would cause them to reduce the material they wish included. It is true that we would have a better picture of the actual cost of each department since there would be a decrease in cost



of the publication if a department were not included. However, educational departments generally are not evaluated on the basis of cost.

Actually, the cost of publishing a catalog or any other general publication is an over-all university expenditure and should be regarded as such. Our general publications cover every phase of university activity; what would we gain by showing what share of the cost of publishing results from the fact that the university has a college of pharmacy or a school of business administration? Furthermore, if

we distributed the cost of our publications, would we not lose sight of their total cost unless duplicate records were kept? Is it not far more practical to control our publication costs when the total cost is given in one department rather than scattered throughout the budget divisions of the university? Would not the costs of our business office be increased because of the increased work in making a distribution and posting it to many accounts instead of one?

The answer to these questions is obvious. The best interests of the university are served if our general publications costs are consolidated in a single account and not distributed. While I have purposely used the item of general publications since it is one with which we are all familiar, the same arguments would apply to the other items listed under the caption of general expense.

The same principles that govern the cost distribution of activities listed under general expense should apply to the distribution of costs of the physical plant to other departments of the institution. At the University of Washington we are required to submit biennial budget requests to the legislature. These requests are submitted to the governor six months before the appropriation is made so that we must estimate our needs for the operation and maintenance of our physical plant two and a half years in advance. We have more than 3,000,000 square feet of floor space in our physical plant, for which all utilities and services are provided by our buildings and grounds department at an annual cost of approximately \$1,500,000.

We do not distribute any of the cost for operations and maintenance of our physical plant except to auxiliary and self-sustaining enterprises. We feel that the needs of management are best served by charging expenditures for physical plant operation di-

NONDISTRIBUTION Cont.

rectly to the department of buildings and grounds, and that there is no point in our making arbitrary or cost accounting distribution of physical plant expenditures between departments.

We are of the opinion that it is easier to control physical plant costs, such as heat, light, water and janitor service, when the total cost is charged to one department rather than dispersed throughout the many departments within the university. We believe it is preferable to show the costs only in the department that is responsible for the use of the funds; that the proper place for control and administration of buildings and grounds services is in the department of buildings and grounds and not in the academic departments. We make the necessary and fundamental accounting divisions of expenditures within the buildings and grounds department, but we have not increased our costs by the establishment of an expensive cost accounting system that the distribution of our plant costs would entail. We have found that details often confuse rather than clarify and have therefore worked for simplicity in accounting and in reporting of expenditures.

SPONSORED RESEARCH

World developments since the conclusion of World War II have made it necessary for our educational institutions to remain in the business of sponsored research. Sponsored research has made college executives and business officers acutely aware of overhead expense and the need for full reimbursement on contract research if they are to maintain financial soundness and the institution's integrity.

In 1947 a committee of representatives from the colleges and military agencies compiled a directive entitled "Explanation of Principles for Determination of Cost Under Government Research and Development Contracts With Educational Institutions." These principles provided a formula for the establishment of predetermined overhead rates under which a university could be certain it was dealing fairly with all government agencies. This formula is not a difficult one, and any school following the accounting practices included in the basic principles

outlined by the National Committee on Standard Reports for Institutions of Higher Education should experience no trouble in establishing its overhead rate.

General expense under this formula is apportioned between (1) the instruction and research activities and (2) the noneducational activities on the basis of total expenditures of the two groups. In other words, if the total cost of an institution's instruction and research program is \$900,000 and its noneducational activities \$100,000, totaling \$1,000,000, nine-tenths of the cost of general expense should be allocated to instruction and research and the remaining one-tenth to noneducational departments.

Regarding plant expense, the "Principles" stipulate: "If practicable, whenever segregated facilities are used, either on campus or off campus, the cost of operating and maintaining such facilities should be charged as direct cost of the research project and no amount should be included for such facilities in indirect expense for operation and maintenance of physical plant.

"If an institution does not maintain operation and maintenance expense accounts for individual buildings, the total expense shall be apportioned on the basis of the square or cubic footage of the buildings."

Further arguments for the nondistribution of general and plant expense include such things as the technical difficulties involved in arriving at a basis for the allocation of costs of campus gardeners or campus police force, or the probability that a distribution of indirect costs would create friction with academic departments, since departmental executive officers are sometimes likely to view with concern any charges to their budgets for expenditures that are not direct costs.

The problems of the distribution of general and plant expense should be considered in the light of the principles that govern university and college accounting—accurately to record and report the purposes for which funds are allotted and to supply management with accounting data that will facilitate control. It is the responsibility of those preparing reports, statistics, and information not only to make such information correct and available but also to make information so readily understood and so acceptable that it will be accepted and used by those for whom it is intended.

DISTRIBUTION Cont.

cost, the method of arriving at it is far from cost accounting, and no long and difficult set of formulas is needed. Nor is it necessary to make a complete distribution of overhead expense in order to arrive at the needed figures. I would take the total expense of the university, after eliminating inapplicable amounts, such as organized research, scholarships and fellowships, and expenses of auxiliary enterprises, together with related overhead, and divide it by the average number of students. Such a computation admits the propriety of including general, administrative and plant expense as a real part of the cost of educating students. If you agree, then why would you presume that the cost of educating a student in agriculture, engineering, home economics, or education could be meaningful if overhead expense were not included.

OF INVALUABLE HELP

The strongest argument for the distribution of overhead expense is ability to determine complete costs of schools or departments for selected periods. I believe these costs are invaluable in appraising the needs of the university in relation to the finances available, particularly when expansion is considered. The mere fact that administrative officers frequently ask for this information indicates an unfulfilled need.

Even if you object to the distribution of general, administrative and plant expense to the basic functional accounts, some portion of that overhead should be distributed to auxiliary enterprises and to any other service enterprises that are income producing. To ignore such proration is to understate the true cost of operation of these units. The National Committee on Standard Reports states flatly that the expense of auxiliary enterprises should include "physical plant or other general expenses properly chargeable to these activities."

It is true that in many instances an auxiliary enterprise cannot be maintained as a self-supporting venture. This is particularly true of residence and dining halls built recently at costs that are not possible of amortization at student board and room rates. Since

we must continue to build them no matter what the construction cost, we theorize that the university is thus subsidizing from state, gift or general fund monies, the students' board and room. Failure to distribute a proper share of overhead, particularly plant maintenance and operation, is to recognize such a subsidy without knowing the amount.

If you are following the expenditure classification recommended by the national committee you should spread general, administrative and plant expense to auxiliary enterprises. How else can your expenses be compared with those of another university of similar size that has no dormitories, dining halls or other auxiliary enterprises.

CLASSIFYING EXPENSES

Some types of general expense are so classified merely because it is easier to do so than to spread the costs. I have always disliked the terms "general" or "miscellaneous" in a classification of accounts, because I know that the tendency is to use such accounts as dumping grounds when we don't have readily available the data to allow a distribution of the expense. I believe all expense incident to salaries and wages is of this type and should follow the wage cost as nearly as possible. Examples of this expense are: pensions and pension premiums, social security taxes, and group and compensation insurance premiums. Such a distribution should not be difficult, for most of these expenses are based upon a percentage of gross pay roll, and surely we know the gross pay roll charged to each functional operation. Or, since some of these expenses are not applicable to the entire pay roll (for example, some employees are probably not eligible as yet to your pension plan) you can adopt a much simpler system that over a period of years should easily equalize the charges. It would be easy to determine the percentage that the total of the pay-roll

taxes, insurance, and so forth bears to the total gross pay roll, charging that percentage to the basic functional accounts with offsetting credits to a reserve. Taxes, insurance, and so forth would then be charged to the reserve.

Many books have been written on the subject of cost accounting and most of them have a chapter or two on the methods of distributing overhead or burden. Although I can't offer a simple solution to the mechanical problem of how to spread each type of overhead expense, I should like to make a few suggestions that may make the task easier.

1. I would classify the expenses to be prorated according to the method of proration to be used. In No. 1 classification, I would put such general expense items as pension premiums, pensions, pay-roll taxes and insurance and other similar expenses that will be spread in accordance with a related and known base such as gross pay roll.

In the second group, I suggest placing those general expenses that are to be arbitrarily distributed regardless of the size of the account to which spread. For example, if you should determine that legal expense should be divided equally between the president's office, the business manager's office, and the fund raising office, then legal expense would fall into this arbitrary group.

In the third group, I should put all maintenance or plant expense and any other expense that will be distributed according to some physical characteristic of the department to which the expense will be spread. By physical characteristic I mean such factors as space occupied, water consumed, hours used.

The fourth or last group should include those overhead expenses that are to be spread to departments on a basis of the amount spent by the department.

2. I would distribute immediately the first and second classes. The rea-

son for an immediate proration is that the amounts will be added to some of the overhead items in third and fourth groups, and such addition should be accomplished before you tackle the latter groups.

3. I would determine in what order the overhead in third and fourth groups should be spread. The affairs of many departments are more or less interrelated; for example, the maintenance department maintains the space occupied by the business manager, while that office supervises the maintenance department. This interrelation among departments and expense items makes it almost impossible, without going through a long series of distribution entries, to make an exact proration of all expenses. Although the procedure recommended by the national committee ignores this phase, I believe it must be recognized and taken into account. The easiest rule to follow is to distribute first that overhead account that by its proration will affect the greatest number of other overhead accounts by the largest amount, continuing in the order of the effect on the remaining accounts, ignoring the effect of any account on other expenses that already have been distributed.

4. I would determine the basis for making the distribution for each individual overhead account in third and fourth groups. The task will be simplified if you can use the same base for a number of the prorations, for one of the time consuming phases of this problem is in determining the base, and not in making the actual calculations or entries. Some of the recognized bases used for proration of overhead items are presented herewith.

PRORATE COSTS

Electricity other than power may be distributed according to the rated capacity of each room weighted by the relative amount of evening use. Heat may be spread in accordance with radiator area or cubic foot room con-

Indirect Research Costs . . .

. . . are becoming a contentious point in negotiations between college administrators and representatives of federal agencies. W. T. Middlebrook, vice president of the University of Minnesota, will plead higher education's case in the November issue.

tent or, more simply and probably just as effectively for our purpose, the square foot area. Administrative expense probably should be prorated in relation to the dollars spent by the departments to which spread. This method is inequitable to some extent because salaries in some departments are relatively higher than in others. Since salaries are the largest part of total expenses in academic fields, overhead would be unfairly added to an already expensive operation. You might argue that a department that is more adequately staffed requires less supervision from administration and should receive less of a proration rather than more. The national committee partially overcomes these objections by spreading half of the overhead in accordance with dollars spent by the basic department and the other half according to student credit hours.

An equitable method of distributing grounds maintenance to departments is to do so on a basis of the ratio of the square feet covered by the base of the appropriate building to the total square feet of all buildings. This method has been in use at Harvard University for the last eight or 10 years. Harvard also charges, as a part of its regular budgetary accounting, the expense of maintenance, caretaking, heat, light and other building expense directly to departmental expense budgets.

I believe it is not necessary to charge the proration of overhead expense to the departmental budgets, particularly if such distribution is done only at the close of the year. Such a charge would serve only to confuse the department and would accomplish no real purpose unless it would make department heads more conscious of the real cost of education. If Stanford University were to make a complete distribution of general, administrative and plant expense, I believe I would set up a separate set of functional accounts to receive such a distribution; this, when added to the regular budget accounts, would give the total cost by function.

It might even be advisable to treat the distribution of overhead expense as a memorandum entry, merely spreading the overhead item across its own ledger page. This would allow one readily to obtain departmental costs, including overhead, and still leave the annual report information as at present for the sake of national uniformity.

SOME TIPS ON FINANCING

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EDUCATORS, ALONG WITH SOME OTHER professional men, often have been accused of being of an impractical turn of mind and consequently poor businessmen. No doubt many colleges have gone on the rocks because of someone's shortsighted business sense. On the other hand, numerous colleges across the country would not be operating today were it not for the far-seeing statesmanlike leadership that has blessed them.

It was my unique experience during the first quarter of 1951 to have been given sabbatical leave for the express purpose of visiting 40 colleges to study their main administrative policies and practices. Three hundred and fifty interviews were held with college administrators in 17 states. I was able to observe the sacrifice and whole-souled devotion of many men and women in helping realize the ideals of their institutions. Not only have the greatest economies been practiced in many of these colleges but their leaders have devised and adapted many ingenious plans for raising funds and financing programs with a minimum of cash. Because several of these plans would, perhaps, be of interest to others facing similar problems, I have summarized a few that appear to be the most valuable suggestions.

ALUMNI FUNDS

Several types of programs of organized regular giving may be classified under the general heading of Alumni

Funds; some of them are mentioned here:

1. The Living Endowment often consists of an organization of alumni and other regular donors, membership in which consists of holding one or more units of membership. Membership units vary from a \$5 to a \$100 gift per year, and a member may hold several units of membership. In some cases membership is quite a definite thing and is indicated by a membership certificate. In other cases, a gift during any year simply makes the donor a member for that year.

2. Some schools merely send a special message to all alumni (or in some cases to all on their mailing list) on one or two important dates in the year, urging them to make their annual contribution to the school. For some it is called the Alumni Fund; for others it is the Patrons' Club; still others use the Blank College Associates idea.

3. Many colleges through their alumni offices use class representatives who send at least one letter a year to their class members, urging them to send their gifts to the alumni fund. The importance of the gift to alma mater is stressed as well as the percentage of donors among the membership of their class. Colleges vary greatly as to the percentage of their total alumni who are regularly giving to the alumni fund. Dartmouth with 60 per cent and an annual contribution well up toward a half million dollars is perhaps the classic illustration of an

PRIVATE COLLEGES

From 350 interviews this author learned about college

fund raising technics, including various types of alumni

clubs, life insurance plans, booster banquets, and

united college appeals to the public

effective alumni fund. Yet some consider that from 30 to 40 per cent is an excellent response.

4. The Anniversary Club idea is being used by some colleges; under this plan an alumnus agrees to send to his alma mater each year a gift of \$1 for each year since his graduation or some multiple of that figure.

5. Another club idea is this: A large percentage of the alumni of some Christian colleges tithe their income for the support of religious work. The suggestion is to organize a "1 per Cent Club" or a "2 per Cent Club," whose members agree to give one-tenth or two-tenths of their tithe each year to their college.

OTHER FUND RAISING IDEAS

Some colleges, including Bethel and McPherson in Kansas, put on an annual Booster Banquet for which much enthusiasm is generated. Tickets are given to donors who have already contributed a minimum of \$10, \$25 or \$100, or whatever price is set. To those who have not yet contributed for the year, the same figure is the price for a banquet plate. Outstanding national figures or other feature attractions are brought in for the program.

Sometimes the Century Club is used to commemorate 100 years of service by the institution. However, it appears more often to be a plan for the recognition of those donors who have given at least a "century of dollars" (\$100) either per year or in toto.

To a surprisingly great extent, colleges, through their regular institutional bulletin or alumni bulletin, are printing at least annually the names of all the donors for the year. They usually do not print the amounts. North Central College has printed the names of all donors of gifts of \$5000 and more in a special leaflet called "Living Memorials."

Some schools publish an attractive brochure concerning any outstanding donors they may have had. It furnishes a nice honor to the individual or the family of the donor. Also, it should encourage other prospective donors. Once each year, through its alumni bulletin, Mercer University publishes a "Bequest Form." Many others publish a blank check or a pledge form for the convenience of possible donors who may read it.

FINANCIAL SURVEYS

It is more important to save dollars that we already have than to attempt to raise those we do not have. Accordingly, Wheaton College called in a firm of business consultants who, by working with the institution, scrutinized every type of financial transaction of its entire operation. A relatively inexpensive study, it has saved the institution several times its cost.

Some colleges are using life insurance plans in at least two effective ways: (1) Their students, graduating members, and recent alumni purchase policies making their alma mater the

beneficiary, or (2) older alumni and friends who have come to a time in life when they no longer need the immediate protection of their life insurance are persuaded to change their policies, naming the college as the beneficiary.

Though some colleges are not the least interested in life annuities, yet a large percentage of the smaller colleges are effectively using the plan. A number of excellent booklets have been printed on the annuity plan as used by various institutions.

Refundable annuities are even being effectively employed by some schools. The idea seems to be that the very conservatism that prompts a client to ask for a refundable annuity will have prompted him also to take other precautions for his financial safety. As a consequence, the report is made that refundable annuities are seldom called for by the donors.

Some colleges make full use of National College Day to get representatives into their churches. Westminster College of New Wilmington, Pa., had representatives in 222 of its "college related" churches on that Sunday (April 8) of this year, and it reports it as its best effort along this line.

For National College Day, or whenever college representatives are in the churches, several colleges furnish the churches with an attractive church bulletin on which the college is featured.

COOPERATIONAL SOLICITATION

For several years now, an organization within the framework of the Independent College Organization of Indiana has presented a united front to industry for the support of the colleges' programs. Two presidents go in a team to do the soliciting. A formula is worked out for an equitable distribution of the funds received. Some corporations that would turn down the individual appeal respond to a united appeal. A similar organization is now operating in Michigan, and several Illinois colleges are beginning such a program. No doubt colleges in many other states are doing the same thing.

Since no chain is stronger than its weakest link, it can be safely asserted that no educational institution is more stable than its financial structure. As college administrators learn how to adopt and adapt better financial methods to their local situation, American youth will be provided with stronger educational institutions.

GUY STANTON FORD, FORMER PRESIDENT of the University of Minnesota, once said: "I rank among the noblest of men the open-minded, cautious scientist, uninfluenced by preconceived ideas, critical of his own work, ruthless in casting aside a theory that does not square with his observations, willing to work unrewarded and unknown in his generation if by his labors men some day might understand better and master more completely the universe about them."

This Spartan discipline, this capacity for disinterested appraisal, this passion for the dispassionate we recognize and seek to memorialize in brick and stone. It illuminates the meaning of academic freedom and responsibility, for only the responsible have earned the right to be free.

This is a time, I think—a troubled time—in which to reassess the meaning of academic freedom and responsibility. I have chosen Dr. Ford's quotation with a purpose.

The California faculty tragedy confronts us all. Although badly blurred in its details, the central issue is clear. I mention it not only because the California case objectifies the issue of "education in a divided world" but also because it recently has been the subject of special discussion within the Association of American Universities. This discussion led to the appointment of a committee to reconsider the responsibilities of both faculties and regents or trustees, and their right relationship, in this whole matter of academic freedom. I have been asked to serve on this three-man committee.

LOOK BACK AND REMEMBER

If any reconsideration seems to us unneeded after all the good thought, and definition, given the problem long since by the American Association of University Professors, the Association of American Colleges and other groups—if academic freedom seems some eternal verity sprung full-blown from the very nature of learning—let us look back, and remember:

I think of Galileo atop the leaning tower, the two stones of unequal weight in his outstretched hands. Below him is the medieval world, confident in its knowledge, obsessed with its systems. How strange to remem-

From a speech delivered at the dedication of Ford and Johnston halls on the University of Minnesota campus, April 1951.

The question is "WHAT IS

J. L. MORRILL

President, University of Minnesota
Minneapolis

ber the outcries when Galileo let fall those stones to discover for himself if the heavier did in truth—as Aristotle said—fall the faster!

The medieval man had no concept of academic freedom as such. He had none because he needed none.

In his classic history of the German university, Friedrich Paulsen wrote: "The older university instruction was everywhere based upon the assumption that the truth had already been given, that instruction had to do with transmission only, and that it was the duty of the controlling authorities to see to it that no false doctrines were taught."

But, he continues: "The new university instruction began with the assumption that the truth must be discovered. . . ." In that statement—"the truth must be discovered"—is the beginning of modern science and humanism, and of our notions of the meaning of academic freedom, one might say. The truth must be *discovered*, and those who would travel the road toward the unknown must be free!

When Galileo came down from the tower, having proved that Aristotle was a better friend than master (the stones having reached the ground simultaneously), he found that while he had his truth, he did not have his freedom.

The spirit of the ancient inquisition, the passion of prejudice, the stubbornness of those who will not learn and have no wish to learn—all these are yet alive despite the unfolding enlightenment of the later centuries. There is now, as then, the often unconscious feeling of antagonism toward those who, by reason or for any reason, would disturb the happy inertia of the complacent or the vested interest of the status quo.

The liberal arts, the social sciences involve among other data the study of ideas, values and ideals. I need not enlarge upon the special meaning of that platitude; I mean only to sug-

gest that the principle of freedom for the scholar is simple in statement but difficult in application.

Ideas and ideals must be made articulate by good teaching. They are revised constantly and contemporaneously by review, test, investigation and critical inquiry on all the frontiers of the humanities and social sciences whose talk is man's better understanding and mastery of himself.

UNIVERSITIES SOCIAL AGENCIES

To these ends the modern university must give the scholar a protected freedom to do his work. But it cannot build a wall around him or insulate him from the rest of the world. Universities are social agencies. To the extent they study society, they move into its center of action. The principles of Milton, Hume, Rousseau and Locke goaded the minds of men of action—Adams and Jefferson—flowering in the development of our American democracy with its ideals of freedom, justice, the inviolate integrity of the individual.

The scholar, therefore, is no recluse; the university is no place of refuge from social, individual or likewise institutional responsibility. Our accepted American code of academic freedom and tenure fails to take sufficient and realistic account of this consideration. Indeed, in my more than 30 adult years in university life, nearly 20 of them in administration, I have seen as many professorial betrayals of the deeper principle of academic freedom and responsibility as of their violation by presidents and governing boards. Actually, considering the full range of American college and university experience, these exceptions have been infinitesimally few, but the practices and the principle are indivisible.

Actually, too, the scholarly profession as a whole is one of the most conservative forces in society. Just try to change a curriculum! There is

ACADEMIC FREEDOM?

no greater understanding of tradition, no more devoted allegiance to the things proved good and true, than among scholars. For every old truth they discard, they cling to a thousand.

There are two suggestions I should like to make to my committee of the Association of American Universities. Let me mention one of these, although I do not know that you will share my concern or think my point important:

If inner self-discipline, devotion to the disinterested pursuit of truth, freedom from coercion from his own or anyone else's preconceptions—if these are the mark and the responsibility of the scholar—then let the members of the scholarly and teaching professions create some machinery for their enforcement upon themselves.

NO SUCH MACHINERY NOW

There is no such machinery now. The code gives little more than lip service to any self-imposed or group enforced compliance with these criteria. As things stand now, academic freedom becomes an issue *ex post facto*, after some administrator or board of trustees has been charged by the complainant with its abrogation.

"If men will discipline themselves in ethics," writes Robert E. Fitch in the *Christian Century*, "others have less reason to do so."

"But if men will not so discipline themselves," he says, "if more than that, they deny that any ethical requirement has relevance to their profession, they need not be surprised if suspicious and jealous and predatory interests find an occasion to move powerfully against them."

The philosophy of liberty—as broadly stated by John Stuart Mill, for example—transmuted through the university environment must receive special and more circumscribed interpretation. It carries a special obligation. Historically, the constitutional autonomy our universities enjoy is more than fiscal or managerial; it is

moral, related to our special function in society; it imposes a peculiar restraint. Institutionally, each of us has an accountability for the protection of the other's special freedom, which is *academic* (not political) freedom. There is a difference, not sufficiently recognized.

The current wave of international immorality must have made us all more aware of the need for that ethical integrity in every individual and every profession.

Men and women of the academic world are closer to unity and common sense on this issue than ever before. We understand that clever dialect is not intelligence; that responsibility is the core, not the curtailment of freedom.

An overwhelming majority of the academic profession has decided, I surmise, that a true totalitarian cannot possibly be a true scholar; that membership in the Communist party betrays the trust and tradition of intellectual freedom, abandoning to dogma and deceit the search for truth.

The brilliantly reasoned report of the A.A.U.P.'s Committee A, published in the spring of 1948—sustaining the compatibility of Communist party membership with academic integrity—will not, in the future, be approved by the profession at large. Certainly the faculty of the University of California has rejected it, explicitly and overwhelmingly.

We shall cling, of course, to our conviction that there is a distinction between the unpopular and the undemocratic. We shall recognize the duty of the university administration and governing board and the teaching profession, acknowledging their mutual responsibilities, to maintain and defend the exercise of independent thought, indispensable for their own survival and the survival of the society they serve.

The code of academic freedom and tenure is completely clear in respect

to the obligation of presidents and trustees. It imposes, as a code of procedure, no similar obligation upon the professor for the prior policing of his own protection. It relies, to be sure, upon what the *Christian Century* author describes as "the democratic judgment of his fellow-craftsmen." But this comes into play after the fact is in the fire—after the damage is done!

I was interested in that author's plea for "an ethical code for teachers." But a code of ethics is not better than its enforcement—and this, it seems to me, the American Association of University Professors and allied groups have failed conspicuously to provide.

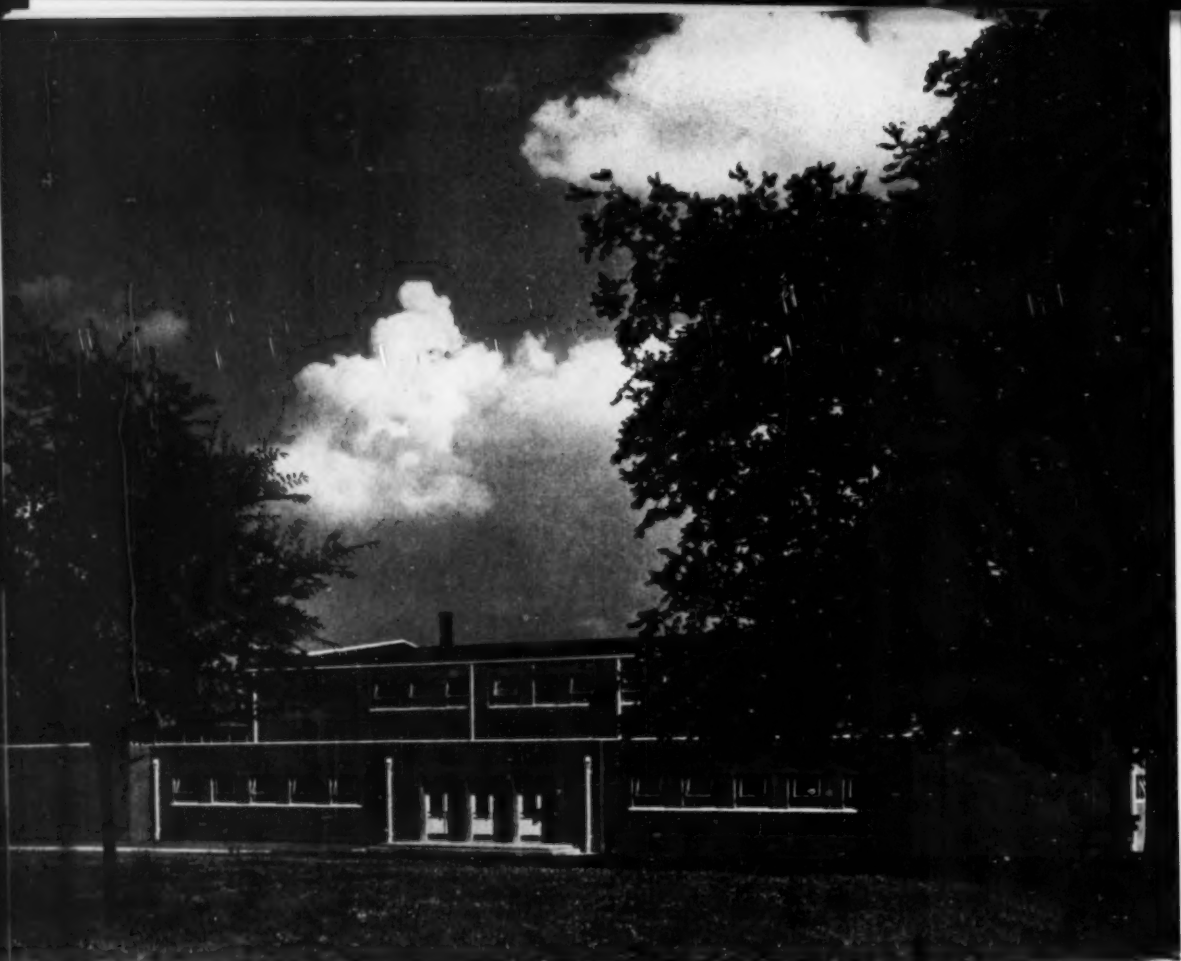
The time has come for the academic profession, in its own way and upon its own initiative, to "spell out" some method and machinery for the exercise of its plain duty.

Speaking last December to the alumni of the graduate school at Princeton, President Dodds observed that "while doctors and lawyers and preachers are responsible to their professional colleagues, they are likewise personally responsible to the laymen they serve. . . . As individual practitioners [they are] subject to lay criticisms and lay judgments in a manner quite different from college or university faculties," he said, adding that "indeed, under the banner of academic freedom our faculties are protected from personal (and public) criticism to a considerable degree. The president may and does find such complaints in his mail." President Dodds remarked, "but he keeps them to himself: he is paid to take the rap."

EXPECT LITTLE SYMPATHY

As another university president, I expect little sympathy on that score and am well reconciled to keep on taking the rap. But it would help to feel oneself sometimes on sounder ground, supported in advance by the sense of shared responsibility among my colleagues of the faculty.

The United States of America has been built and has gone forward upon the premise of revolution by law and order. As a nation we are geared for change—ready to retool our technics and machines, amenable sooner or later to social advance. That is the secret of our strength. In the free and fertile mind lies still the promise of a larger future. In that picture the college or university professor will play, as he has always played, a pioneering part.



FISK'S NEW GYMNASIUM

When building, **PLAN FOR MAINTENANCE**

AS THE FINANCIAL STRAIN ON private colleges and universities becomes greater, more and more administrators are awakening to the fact that planning for maintenance can be a good investment. They have come to realize that the extra time and thought spent in planning for maintenance can pay annual dividends in the form of reduced operating costs.

Economic necessity dictated that the new gymnasium at Fisk University be planned for low operating cost, as well as for low initial cost. The department of buildings and grounds worked closely with the architects, the

department of physical education, and the president's office with special attention being given to all details that might affect maintenance costs.

The fact that the actual cost of constructing the building was only \$0.46 per cubic foot indicates that construction costs were held to a minimum,

but this was done without sacrificing durability, quality of materials and workmanship, or any of the requirements considered essential by the department of physical education.

Basically, the building contains a playing area 100 by 106 feet, which is surrounded on three sides by offices,

JOHN H. SWEITZER

Superintendent of Buildings and Grounds
Fisk University, Nashville, Tenn.

classrooms, locker and shower rooms, and similar facilities. Facilities for men are concentrated on one side, while the other side is planned for women. Original plans included an automatic folding partition to divide the main playing floor into two areas—one for men and one for women—but this feature was later dropped because of the cost.

The main playing area includes two basketball practice courts, side by side. Telescoping bleachers are pulled out from the sidewalls for varsity games, at which time a third court marked off in the center of the floor is used. The floor also is marked off for tennis, volleyball, badminton and shuffleboard.

Rigid fabricated steel arches are used to support the roof over the main playing area. This type of construction increased the effective ceiling height and added to the spacious appearance of the area. The playing floor is of beech, sealed with a synthetic resin base gymnasium floor seal; the walls are of concrete block, painted light gray, and the ceiling is unpainted

glass fiber insulating board. The area is heated by unit heaters suspended from the ceiling and is lighted by standard 1000 watt reflector fixtures. As an incidental result of the rough walls and glass fiber ceiling, the acoustics are remarkably good.

WALLS ARE CONCRETE BLOCK

Although the walls in the toilet rooms are plastered with Keene cement, all other walls are of concrete block, painted in grays, greens and browns. Ceilings are of rib-slab construction with exposed concrete block painted white. Floors in offices and classrooms are "C" grade asphalt tile; those in the corrective gymnasiums are beech, while other floors are concrete with integral coloring. All doors are stained lightly and varnished; most are protected with kick plates.

The natural slope of the land provided space for a student union, 40 by 100 feet, plus kitchen facilities on the ground floor at the rear of the building.

Exposed piping was used throughout the building for both the plumb-

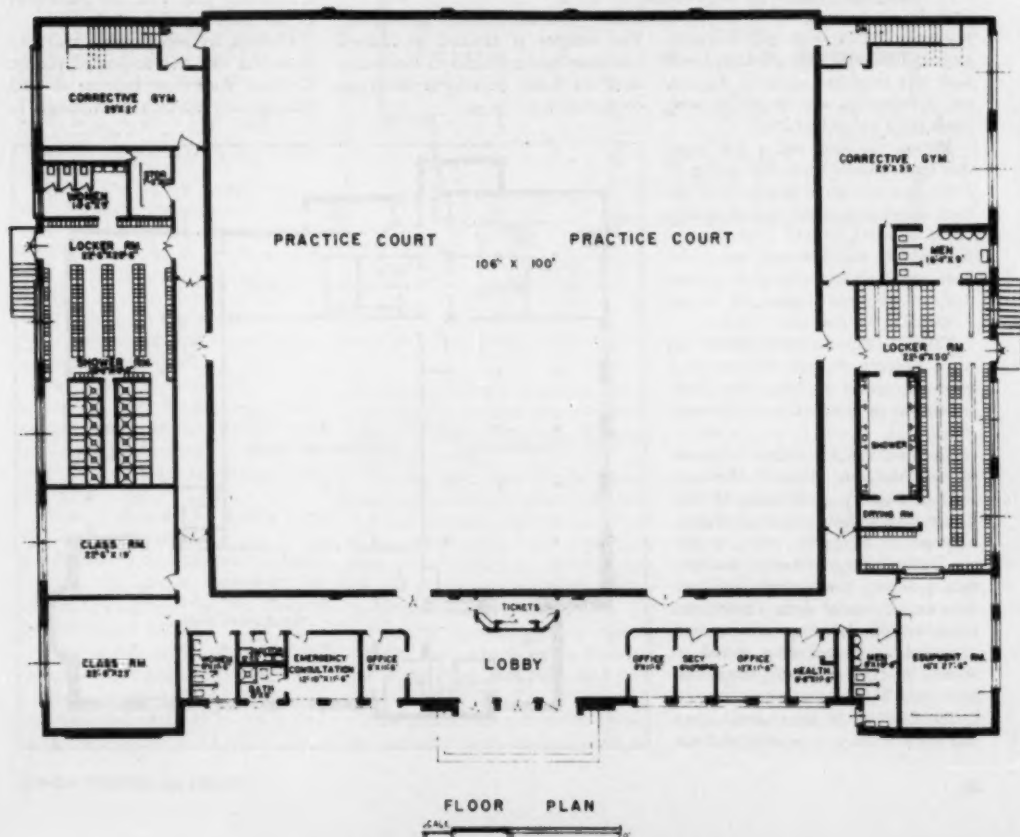
ing and the heating systems. Pipe spaces, 2 feet wide, are located adjacent to the toilet rooms and other plumbing to give easy access for repairs. A ventilated room with utility sink is provided for the janitor. Floor drains were specified in all toilet rooms and locker rooms.

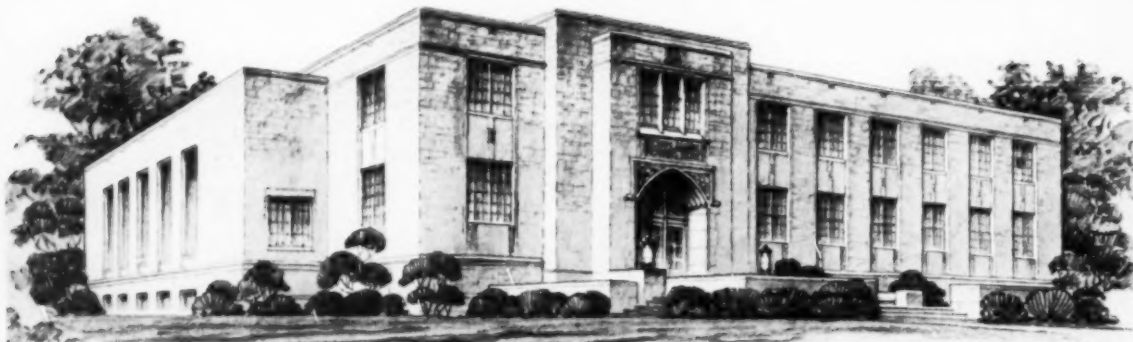
Ceramic tile is used extensively on the walls in the area where traffic is heaviest—the lobby, front halls, and public toilet rooms. All window sills are of ceramic tile.

Obscure glass is used in the windows of the toilet rooms, locker rooms, and shower rooms, and nonglare glass is used in the high windows all around the main playing area. In addition to reducing glare, this treatment cuts down on the frequency with which these windows must be washed.

When all-school dances are held in the gymnasium, classrooms can be used as checkrooms, since they are equipped with Dutch doors and coat hooks.

McKissack and McKissack of Nashville were the local architects, and Paul Williams of Los Angeles was the consulting architect.





STUDENT UNION *provides for social education*

A STUDENT UNION, IT HAS BEEN SAID, is more than a building. It is a well considered plan for the community life of a college. Thus, as with other campus buildings, you not only construct the building but you plan at the same time the activities it will house. Such planning started with the blueprint stage at Evansville College, when Doris Kirk was employed as union director, and a campaign was started to raise funds for a union building.

During the four and a half years that have elapsed since that spring of 1947, a student union organization has been developed, funds raised, and a union building erected. Last January the building was dedicated, and a student union organization with a great deal of previous experience began functioning in that new building.

This simultaneous development was made possible through the use of a temporary union building. The TUB, which was an enlarged Red Cross canteen.

The new union building is known as the McCurdy Alumni Memorial Hall in memory of William H. McCurdy, civic leader and successful businessman in Evansville, who became the college's biggest donor. Students, faculty, alumni, townspeople, and business and industrial firms contributed funds to the building, which is a memorial to alumni who served in World War II, especially those who gave their lives in that war.

The building is three stories high and has a reinforced concrete skeleton

HAROLD VAN WINKLE

Director of Public Relations
Evansville College
Evansville, Ind.

frame; it is fire-resistant throughout. The exterior is finished in Indiana limestone random ashlar to harmonize with the other permanent buildings on the campus.

Interior partitions are lightweight aggregate block; windows are double-hung aluminum. Stairs are the standard pan type of construction with terrazzo treads and landings. Stairwells are painted gray with the metal part of the stairs a Chinese red.

Ceilings in most rooms are fiber acoustical tile over suspended plaster. Recessed fluorescent lighting is used throughout, although furnishings in



some of the rooms include incandescent floor and table lamps.

Floors are terrazzo in the grill and lobby, quarry tile in the main kitchen, and wood block in the John F. Carson Memorial Great Hall. The student-alumni lounge, the Eades memorial music room and the Hastings memorial browsing room are carpeted. All other floors are covered with asphalt tile.

Heat from a central heating plant is converted to hot water within the building. Heating is by forced hot water through radiators of the convector type with supplementary heat by forced air. Ventilation in the principal parts of the building is handled separately. All main spaces are designed for future air conditioning.

Interior finish and furnishings make the union a colorful building—gay, modern, youthful. All woodwork in the building, including doors, wainscoting, paneling and built-in shelves and cabinets, are finished in driftwood gray, except the counter and booths in the grill which are sandblasted pine. All furniture is blond, tastefully upholstered, and window draperies and painted walls harmonize in pleasing variety.

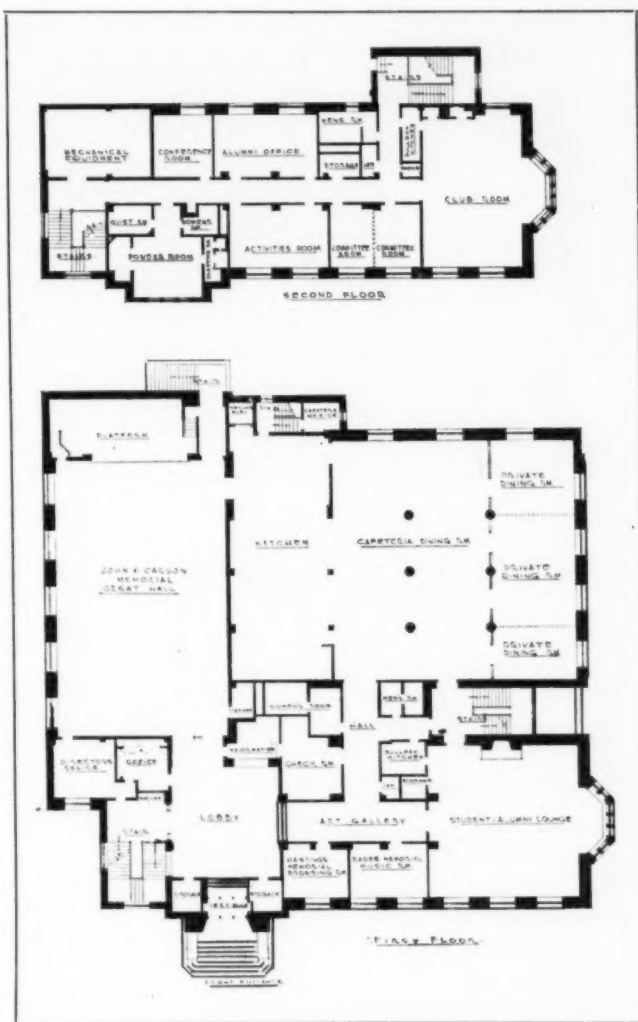
Virtually all walls on the first and second floors are painted plaster. Walls in the Great Hall and lobby are wood paneled. Kitchen walls are covered with 5 by 8 inch facing tile and toilets with 4 by 4 inch glazed tile. Walls on the ground floor are painted aggregate block.

On the first floor is a modern cafeteria. Adjoining the large main dining room are three private dining rooms with folding doors so groups varying from 10 to 100 can be served. Total capacity of the cafeteria is 210. A door leads from the kitchen to the Great Hall, to facilitate the serving of banquets in that room.

The Great Hall, with a stage at one end, will be used for lectures, recitals, banquets and meetings. Dollies have been especially built to roll under the stage for the storage of folding chairs and tables.

Walls of the corridor leading from the wood paneled lobby are wainscoted and are equipped with indirect lighting and special equipment for hanging pictures so that the corridor becomes an art gallery.

Other rooms on the main floor include a music room, a browsing room, a check room, two offices, and the student-alumni lounge, which has a fireplace, bay window, and a grand piano.



This lounge and the music and browsing rooms are carpeted and have beautiful upholstered furniture, draperies, tables and lamps.

On the third floor are an alumni office, two committee rooms with folding wall between them, a conference room, an activities room with filing cases where campus organizations may keep their permanent records, a club room, and a powder room.

Both the student-alumni lounge on the first floor and the club room on the second floor have adjoining pull-man kitchens.

The ground floor contains a snack bar and grill, with booths around the

sides, tables on the center floor, and a soda fountain and grill at one end. It has a capacity of 200. Also on this floor are a game room with table tennis and billiard tables, and a large informal lounge named The Patio, furnished with metal furniture upholstered in gay hues.

Total cost of the building, including building contracts, furnishings and equipment, landscaping and architect's fees, was approximately \$650,000. This is \$13.60 a square foot and \$0.95 a cubic foot; it does not include the value of the site.

Architects were McGuire and Shook of Indianapolis.



STUDENT LOUNGE and snack bar designed for leisure

THE SITE SELECTED FOR THE STUDENT lounge and snack bar at Bradford Junior College is on the back campus behind the gymnasium—far enough away from the work atmosphere of the other buildings, yet near enough to the residence halls to be easily accessible. Located near the tennis courts, softball diamond, archery field, lake and picnic grove, the lounge is an informal gathering place where students can entertain their dates and other guests.

The building was designed by an alumna architect, Laura Cox of Boston. Because of its semi-isolated location in relation to the other buildings it was possible for her to employ a modern architectural style, although the other buildings are of Georgian and Victorian design. To make the new structure blend with the brick of the other buildings the exterior of smooth pressed wood was painted a warm brick red. All materials were selected on the basis of economy, durability and appearance.

The structure measures 50 feet 10½ inches by 55 feet 11 inches, has frame walls, and a flat tar and gravel roof with a 6 foot overhang, and is decorated by a series of steel posts painted white. Here again, the posts, while not functional, serve the purpose of

CONSTANCE LEIGHTON

Director of Public Relations
Bradford Junior College
Bradford, Mass.

blending the style with that of the other college buildings. The foundation wall is built of concrete blocks and the floor foundation of cement slabs. Although one wall is attached to the gymnasium, there is no connecting doorway between the two buildings.

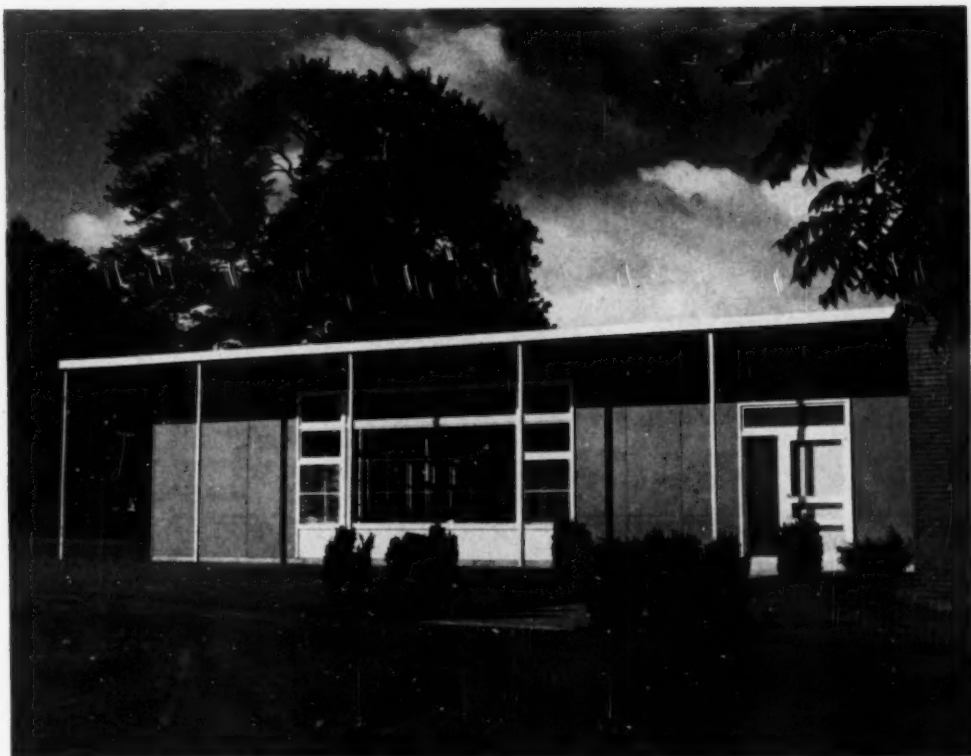
At night the exterior is illuminated by a series of spotlights in the soffit of the overhanging roof, by two spotlights centered on the entrance, and by a floodlight on the roof that lights up the outside area. The beams from the soffit lights are centered directly on the windows to kill the blackness of the large glass area and at the same time to make the interior less visible from outside.

The setting called for large window areas that were subdivided to relate the scale of the snack bar to the existing buildings. Each of the three walls is set with a series of these subdivided frame picture windows. Those on either end of the series are double hung; the rest fixed. The light from these large windows, together with the gray-green tinted plaster walls, makes

for a pleasant, colorful interior with a feeling of sweep and spaciousness. At the same time, the low ceiling (11 feet) and small groupings of furniture give it a comfortable, informal atmosphere. The floor is covered with black and green asphalt tile, which, with the perforated acoustical tile ceiling, keeps noise at a minimum.

The room is furnished with blond finished maple pedestal tables and captain's chairs and a grouping of three dark green couches and dark maple coffee tables in the center of the room. With the built-in seats in the southeast and southwest corners and in the fireplace alcove, the room seats 85 of the school's 290 students comfortably at one time. One of the room's principal attractions is the 19 inch screen television set given to the college by the father of a student. Fish net curtains over the entire window area soften glare without keeping out light.

The building is heated by a circulating hot water system connected to the central heating plant. The heating fixtures of the exposed convector radiation type extend under the windows, and the covers, painted to match the walls, have slanting tops to discourage their being used for seats or shelves. In spite of the large glass area,

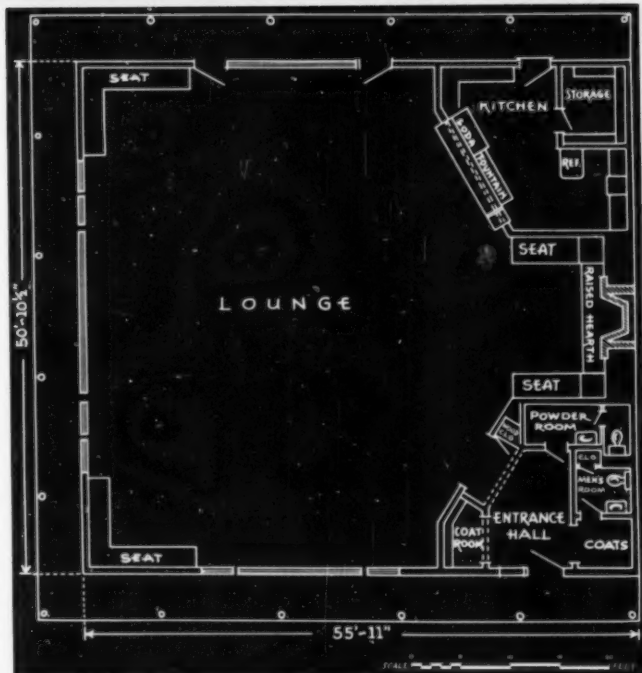


Above: The main entrance. Lights in the overhang are installed in swivel bases so that they can be directed on windows.

the heating system has worked well even in the coldest weather.

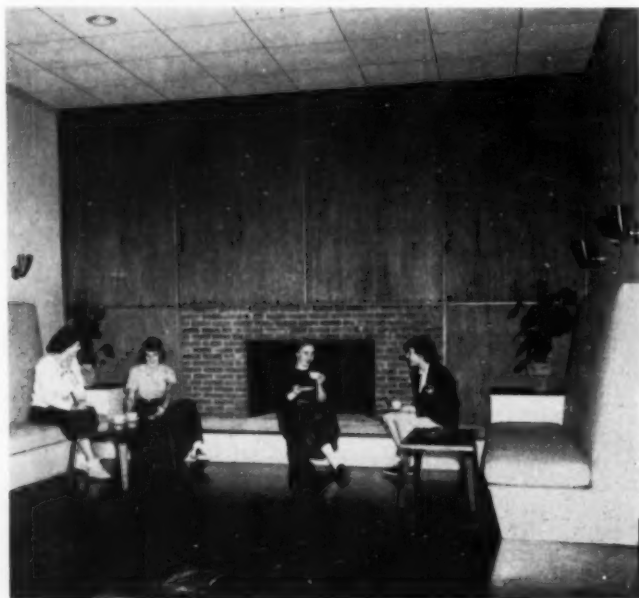
The laminated plastic counter top covered with a thin glaze is equipped with a soda fountain and 20 gallon ice cream storage cabinet. In the area behind the counter are grill, coffee maker, toaster, juicer, a dish machine, and a 27 cubic-foot refrigerator. Both this area and the toilets are ventilated mechanically by electric fans, and partitions are of frame and plaster. The food service section is illuminated with fluorescent lighting. Although all other details of the building are highly satisfactory, this area, which lacks a back bar running parallel to the counter, has not proved of ideal design. The telephone, connected to the main switchboard, is located at one end of the counter where it can be reached from either side.

Special features of the building include the built-in seats, the mahog-





Above: The main part of the interior is illuminated by a series of 20 spotlights set in the ceiling 8 feet apart which give soft and even lighting throughout the room. Below: The mahogany paneled fireplace alcove has two copper bracket lights on each side wall. Shades can be turned down to convert them from indirect lights into reading lamps.



any paneling on the fireplace wall, the brick fireplace set flush to the wall, and the raised cement hearth.

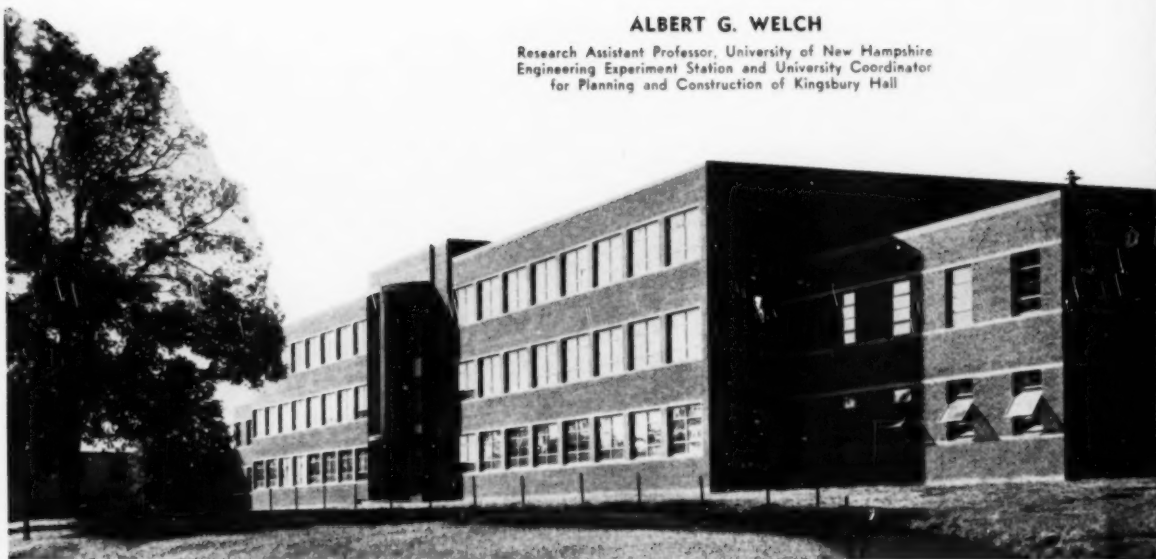
Total construction cost of the building, erected in the spring of 1950, was \$21,821, itemized as follows: building contract, \$15,321; plumbing, \$1300; heating, \$2900; electricity, \$800; painting, \$1250; hardware, \$250. Another \$8441.34 was spent on equipment and furnishings, bringing the grand total to \$30,262.34.

Eighty per cent of the total cost was covered by gifts, including a special Fathers' Fund, several class gifts, the Alumnae Fund, gifts of various college organizations, and money raised by students.

Although the building is open throughout the day, the counter closes at meal times, since it is quite literally a snack bar and is not intended to lure students away from the college dining room. Despite this and the relatively small number of potential customers in a school of this size, sales have exceeded expectations. For its first full six months of operation an average of 187 sales a day was recorded. This figure is not indicative of the total volume, because many of the sales represent servings for several persons. In any event, income has covered all operating expenses.

ALBERT G. WELCH

Research Assistant Professor, University of New Hampshire
Engineering Experiment Station and University Coordinator
for Planning and Construction of Kingsbury Hall



University of New Hampshire builds a new

TEACHING & RESEARCH CENTER *for engineering*

KINGSBURY HALL, NEW ENGINEERING building at the University of New Hampshire, is the culmination of a planning program that started long before any appropriation was made or an architect chosen. The men who initiated the planning were the faculty members who now are teaching in the Kingsbury Hall classrooms and working in its laboratories.

By the time the architect (Arland A. Dirlam of Boston) was chosen the university's college of technology staff, under the direction of Dean Lauren E. Seeley and a staff coordinator, had gathered definite and detailed information and suggestions as to what would be needed.

In their planning the staff members sought not only to create a building that would provide adequately for more students than the former engineering headquarters but that also would provide adequately for teaching and research of a type not contemplated when the former building was erected 35 years earlier.

Final plans were for a building containing approximately 1,000,000 cubic

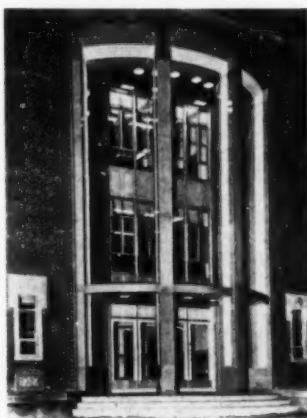
feet of space. The lowest bidder, Volpe Construction Company of Malden, Mass., was awarded the contract on its bid of \$874,339. Construction was started in November 1948 and was completed in the summer of 1950.

Named for the university's first professor of mechanical engineering,

the late Albert Kingsbury, Kingsbury Hall is the largest structure on the university campus. It provides offices and a reception room for the dean of the college of technology. Departments housed in the building are chemical, civil, electrical and mechanical engineering, and the engineering experiment station.

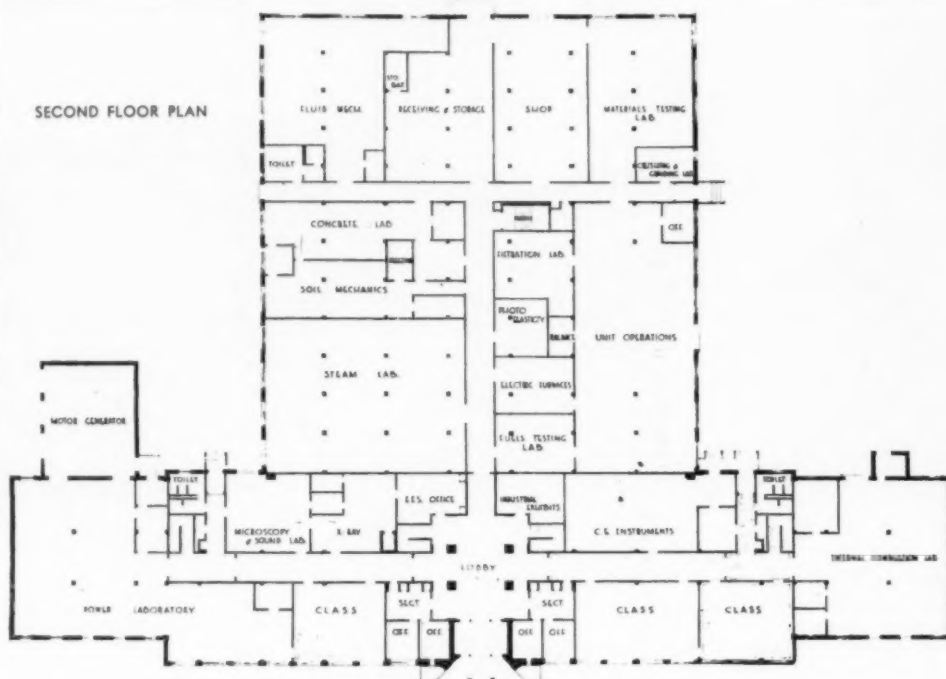
The building is T-shaped. The front wing is slightly more than 300 feet long and 60 feet wide at the center, narrowing to 50 feet wide at each end. The center 200 foot section has three stories with end wings two stories high. The shank of the T is two stories high, 140 feet wide, and 144 feet long.

The front section provides space for administration, classrooms, drafting rooms, and special laboratories. The rear section includes research rooms, an engineering library and reading room, and chapter rooms to be used as study rooms and meeting places for the student engineering chapters. Also in this section are the specialized laboratories of the chemical, civil, electrical and mechanical engineering departments, as well as laboratory space



Front entrance to Kingsbury Hall.

SECOND FLOOR PLAN



FIRST FLOOR PLAN



for the engineering experiment station which is engaged in research and testing projects in all branches of engineering.

With five engineering departments under one roof, considerable thought was devoted to the arrangement of the laboratories and elements common to the various departments. This provides for dual use of such space and equipment at a minimum of cubic content.

Ample circulation for the student traffic is provided from the entrance through wide center corridors, in the front and rear sections. All major laboratories have large service doors to permit passage of heavy and bulky equipment.

The external design of the building is, in the words of the architect, "a flat expression of contemporary architecture." The merit of this functional approach was reflected in the low unit building cost.

The building is completely fire-proofed. The exterior is finished in red water-struck brick, limestone and granite; interior partitions are cinder-concrete blocks. The flooring is structural concrete covered with a variety of finishes, such as integral finish concrete, terrazzo, asphalt tile, rubber tile, and wood block. Ceilings are acoustical plaster and tile in the lobby, halls, classrooms, drafting rooms, offices and library; others are painted concrete or painted metal joists. The elimination of cornices and entablatures should ensure a minimum of future maintenance cost.

The walls of the main offices, library and chapter rooms are finished with painted plaster with wood trim. Most other walls have paint applied directly to the cinder blocks. In the corridors, structural tile is used for the lower part of the walls. Throughout the building the modern trend toward color is apparent in the use of pastel tints.

Kingsbury Hall's functional design includes little ornamentation. But what ornamentation there is consists of scientific symbols and representations of engineering equipment and apparatus. In the floor of the main lobby a map of New Hampshire is executed in terrazzo. An overhead light is focused on the location of Durham. On the rear wall of the library a mural was painted by John W. Hatch, instructor in the arts at the university. His theme for the mural is the power of the atom for use in war and peace.



A member of the faculty at work in one of the five small laboratories designed for individual use by those engaged in research projects.

It includes a diagram of the Kingsbury thrust bearing for which Professor Kingsbury is most noted.

The building is heated by a forced hot water system from the university's central heating plant. Free-standing cast iron radiation is used in all except the main offices, where cast iron convectors are recessed in the wall. Most of the piping is exposed except in a few office areas. Forced ventilation is provided for all inside rooms. All process laboratories have hoods and separate systems.

EXHAUST STACKS OUT OF VIEW

Supply air ducts are provided with low pressure steam heating coils for automatically tempering the air for cold weather operation. All exhaust stacks project through the roof in the front center section and are screened from view by a parapet wall.

The lighting is almost entirely fluorescent. In the front corridors all fixtures are in the center of the ceiling. In the rear wing, fixtures are staggered and mounted at the junction of wall and ceiling. Diagonal strip lighting is used in the third floor drafting rooms, a feature that has helped considerably in eliminating glare and shadows on the drafting tables.

Major laboratory units, which were moved into the building, include those for electrical machinery, internal combustion engine, steam, concrete and soils testing, materials testing, and electronics, as well as a civil engineering instrument room. Erection of the

building has provided additional laboratory space for work in fluid mechanics, electric furnace, fuels testing, photo elasticity, carburization testing, sanitation, computation and metallography.

Space and facilities for the engineering experiment station's research and testing program include special laboratories for research in pulp and paper operations and for research and testing of plastics. One laboratory has been set up for x-ray inspection and diffraction work and for microscopy.

Foundries and allied industries in New Hampshire are interested in the study and control of molding sand. A laboratory has been set up and much work is now being done on molding sand testing.

A materials testing laboratory has been modernized and enlarged, with a new 300,000 pound hydraulic testing machine added to the equipment. Six rooms have been specifically set aside as research laboratories for individual staff members and graduate students working on industrial fellowships. Each room has available the necessary electrical, steam, gas and water facilities, as well as adequate special ventilation.

The design of Kingsbury Hall allows for expansion at a future date if necessary. One wing, either one or two stories high, could be added on either side of the rear section. These wings would not interfere with access to, and adequate servicing of, the present rear wing.

Legal Restrictions on Educational and Charitable Bequests



T. E. BLACKWELL

Vice Chancellor and Treasurer
Washington University, St. Louis

THOSE SEEKING BEQUESTS FOR educational and other charitable purposes should be familiar, in general, with the restrictions imposed by some of our state legislatures upon the right of individuals to make such bequests.

Since early feudal times, the English Parliament has found it necessary to place some restraint upon the amount of property that could be held by religious and charitable organizations. Under feudal law, the holder of land was under obligation to give military aid and assistance to his overlord. If the land passed into the hands of a religious or charitable organization, this important right to military assistance was impaired. Consequently, even Magna Charta¹ contained a section on mortmain, restricting the right of such organizations to hold land in perpetuity. At one period in English history, according to Lord Hardwicke,² "the clergy and religious houses had contrived to possess themselves of nearly half of the whole real property of the kingdom."

In 1736 Parliament enacted legislation³ restricting the power to make such gifts within one year before death. The preamble of the act, in justification thereof, stated that "public mischief of alienations of late, greatly increased by many large dispositions made by languishing or dying persons to uses called charitable, thus disinheriting the lawful heirs" made the restrictions necessary.

Thus is indicated the two primary

reasons for such legislation, *i.e.* (1) to prevent charities from accumulating great blocks of land and other forms of wealth in perpetuity, thereby rendering them unavailable for the support, by taxation, of the necessary functions of government, and (2) to prevent an individual, during his last illness, from bequeathing to charity property that might represent the sole support of his widow and other heirs.

In America, the early restrictions of this character were primarily limitations on the power of religious and other charitable institutions to take and to hold property. In these early days, charters were granted by special acts of the state legislatures. At the time the state granted a charter to such an organization, it would frequently insist upon the insertion, into the charter itself, of restrictions limiting the monetary value of personal and real property the corporation might hold at any one time.

RESTRICTIONS ABANDONED

Later, general statutes were enacted under which all charitable corporations were strictly limited in their capacity to hold property in perpetuity. Gradually, however, the restrictions on the power to take and to hold have been abandoned either by repeal or by judicial interpretation. For instance, in 1875⁴ New York placed a limitation of \$500,000 in real estate and \$150,000 in personal property, but later repealed the act. On the other hand, Kentucky,⁵ in revising its code in 1950, retained legislation limiting religious societies to 50 acres of land. North

Dakota, in 1945,⁶ and Mississippi, in 1946,⁷ reenacted similar legislation. At the present time, 12⁸ of our American jurisdictions have legislation directly restricting the power of individuals to make gifts and bequests to charities.

It is interesting to note from the dates of enactment listed in the footnotes that all of this legislation has been in codification proceedings during the last five years, showing that the public policy thus reflected has been subjected to very recent scrutiny and discussion by the legislators of the various states.

Such legislative discussion and debate have emphasized the fact that the restrictions imposed were not directed against charity as such but were merely intended as protection to the family against possible disinheritance. For instance, in five⁹ jurisdictions, any bequest to charity made 30 days before death is either void or voidable at the request of heirs. Two¹⁰ have a 90 day restricted period, one,¹¹ six months, and in another,¹² one year is the requirement. The basic concern of such legislation is to prevent the testator from leaving his family severely handicapped economically. Accordingly, in addition to time limitations, a number of the states have restricted the proportion of the estate that may be left to charity to the exclusion of immediate heirs. New York restricts the amount that may be left to charity to one-half of the net estate, while California and Georgia restrict the proportion to one-third.

The intent of the legislation is to extend protection to the immediate family of the deceased, but the definition of this protected group varies widely. In addition to the widow,

¹North Dakota Revised Code, 10-0807 (1943).

²Miss. Code, Anno. Paragraph 5351 (1946).

³California, Cal. Prob. Code, Sec. 41 (1949). District of Columbia, D.C. Code, Sec. 19-202 (1949). Florida, Fla. Stat. Sec. 731.19 (1949). Georgia, Ga. Code Anno. Sec. 113-107 (1949). Idaho, I Code Anno. Sec. 14-326 (1948). Iowa, Code of I. Sec. 11848 (1950). Maryland, Art. 38, Const. of Md., Anno. Code of Md. (1949). Mississippi, Miss. Code, Anno. Sec. 671 (1946). Montana, Rev. Code of Mont. Anno. Sec. 91-142 (1947). New York, N.Y. Dec. Est. Law. Sec. 17 (1949). Ohio, Page's Ohio Code Anno. Sec. 1050-5 (1950). Pennsylvania, Purdon's Pa. Stat. Anno. Telle 10, Sec. 17 (1949).

⁴California, District of Columbia, Idaho, Montana and Pennsylvania.

⁵Georgia and Mississippi.

⁶Florida.

⁷Ohio.

⁸The "Great Charter" to which the English barons forced King John to affix his seal June 15, 1215, on the fields of Runnymede.

⁹Yates v. Yates, 9 Barb. 324, 333 (N.Y.).

¹⁰9 Geo. 2, C. 36 (1736).

¹¹N.Y. Laws, Chap. 267, Sec. 2 (1875).

¹²Kentucky R.S. 273.090 (1950).

children and dependent grandchildren, the rights of brothers, sisters, parents, nephews and nieces also are protected by some of the statutes and seven¹³ states have extended protection to all descendants.

The majority of students of this subject agree that only the members of the testators as defined by statute should have the right to have the bequest to charity declared invalid. Two states¹⁴ have so declared by affirmative legislation, and the courts of several other jurisdictions have read this qualification¹⁵ into the statutes. For example, in a case¹⁶ decided by the supreme court of Illinois in 1904, Henry F. Page, a resident of Ohio, executed a will on May 5, 1891, wherein he left his entire residuary estate to the general endowment fund of Ohio State University. He died on October 27 of the same year and the bequest to the university was contested on the grounds that the will had been drawn less than one year prior to his death, contrary to the Ohio statute. However, evidence was introduced to show that his daughter, his only heir, had expressly waived the protection of the statute. The court thereupon held that the bequest was valid, despite the literal wording of the statute to the contrary.

Few jurisdictions have restricted the right to give to charity during the life of the donor. Pennsylvania, by legislation enacted in 1855,¹⁷ provided that "no estate shall be conveyed to any religious or charitable use except it be done at least one month before the death of the alienor." This legislation was repealed in 1939¹⁸ and replaced as follows: "Any gift for religious or charitable uses hereafter made to take effect in possession or enjoyment at or after death of the donor shall be void unless made at least 30 days before such death."

In 1939¹⁹ Louisiana stipulated that donations during the lifetime of the donor (inter vivos) or in anticipation of death (mortis causa) cannot exceed two-thirds of the property if he has a dependent child.

¹³California, Florida, Georgia, Idaho, Mississippi, New York and Ohio.

¹⁴California and New York.

¹⁵Karolusson v. Poonessa, 222 N.W. 431 (1929).

¹⁶Folsom et al v. Board of Trustees of Ohio State University, 71 N.E. 384.

¹⁷Purdon's Penn. Statutes. Paragraphs 10-12.

¹⁸1939 Laws of Pa., p. 141, Act 70.

¹⁹La. Code Anno. Paragraph 1493 (1939).

FOOD SERVICE PICTURE IN COLLEGE FIELD IN 1951

MARY deGARMO BRYAN

Head, Department of Institution Management
Teachers College, Columbia University

TO ANYONE RESPONSIBLE FOR FOOD service in schools and colleges, life is a series of crises. To say, therefore, that the coming year is an extremely critical one for our colleges and all their activities, including that of food service, brings less of a shock than the situation probably warrants. We should examine the possibilities, however, to the end that we may meet or control them rather than waiting to see what happens to us and then have to use emergency measures. I shall refer briefly to some of the problems that we now face.

As in every manufacturing industry, of which we are one type, one of our primary concerns is supplies.

HOW MUCH SHOULD WE BUY?

The amount of inventory varies with the location of the institution, but the practice seems fairly general of turning over most staple items monthly, if not oftener. Some good buys may warrant unusual purchases, but panic buying in fear that the armed services will take an undue proportion of foodstuffs or in fear of rising prices will only tend to accelerate the inflationary spiral that will make college food service and the food of every American a serious matter in-

deed in 1951-52. Any practice that helps to raise food prices as a whole will cost us all more money than the possible saving on the one or two heavily stocked items.

Conservation of supplies is especially important. This means proper storage, for example, and centralization of menu making, buying and pre-finishing preparation on campuses having more than one service unit.

Storage facilities influence inventory and conservation. Buyers sometimes seem to forget this. In one large university last April I saw a purchasing agent stock up with a year and a half's supply of tomatoes and citrus juices. Much of this was probably from packs almost a year old at the time of purchase; new packs were already beginning to come in in some sections. His storage rooms were without ventilation, unwrapped heating pipes ran through them, and new deliveries were placed unmarked as to date, in front of old stock. It is not difficult to predict the loss through spoilage and the deterioration in quality that will result in this institution.

With most of our armed forces in this country accessible to normal production and storage facilities, it seems unlikely that foods for military personnel will be stockpiled in excess of reasonable consumption by the maximum force anticipated at the time. Joint purchasing by all the services will prevent competitive buying and wasteful and expensive warehousing.

We are at the beginning of an era of military preparedness that will probably last many years. If we become involved in global war all current procedures will change instantly. Otherwise we must operate our military machine with economy and effi-



ciency if we are to be able to carry the load. This is particularly true in the vital area of food supply, which touches every citizen.

It is essential that we watch closely all legislation and procedure affecting food supply, state our problems, and express our opinions through our legislators and possibly through some authorized representatives of our college and university business associations. The National Restaurant Association, whose members feed many millions, maintains a committee of outstanding members in Washington to represent the interests of the industry and to render such service as is desired of the industry by government agencies. In our colleges and universities we, too, feed several millions of a priority group, many of whom are being trained for military service of some sort. We owe it to our students and our institutions to see to it that we are considered in actions that involve the foods we need for our essential services.

WHAT WILL WE HAVE TO PAY?

One area affecting our supplies is the necessity for rigid controls on prices. It is not likely that the incomes of our students will increase across the board as prices, and therefore wages, increase. Students go to college on the savings of their parents or themselves as well as on current incomes of parents now heavily taxed. The rates at which many students work to cover some of their expenses are not likely to increase. Government subsidies to students are not large and are fixed. Students, in the main, are living on relatively low incomes. We cannot pay increased prices for food, wages and equipment without increasing our costs, and there is a limit to the amount of these costs that can be passed on to the students. Existing controls seem to have been inadequate.

CAN WE GET EQUIPMENT?

We are concerned also about supplies of equipment. The developments in many types of equipment that were beginning to appear since World War II were most encouraging. Continuance of progress will probably be limited in the immediate future because of material limitations and defense orders. We are therefore likely to limit purchasing at present to essential items only and to take special care of all items we now have in operation. Rising prices, shortages of many items,

and uncertainties of deliveries will discourage buying.

WHAT ABOUT LABOR COSTS?

The third commodity with which we are concerned is labor. Many of us have adjusted wages upward in recent months, but major increases have been held in line pending permanent price control policies.

Since there seems little chance of enactment by Congress of effective price control legislation, we must face inflation all along the line of our operations.

What can we do? We can, of course, raise prices. Any appreciable increase in prices means loss of customers. Raising prices is therefore not the an-



swer, nor is it a substitute for keen management. A number of answers to this question are suggested here.

1. Careful buying on suitable specifications with full knowledge of new processing and packaging of foodstuffs that will affect the type and kind of storage and equipment needed and labor required for finishing.

2. Use of cost control procedures, including standard recipes and requisitions, stores control, portion control, accounting records, which serve as guide as well as a history of operation, and scheduling of employees for maximum production.

3. Merchandising of food through excellent preparation, attractive service, good advertising, and varied menus. The last is especially important in view of the increased use of less expensive items.

4. Good selection, training and use of personnel. Careful study of labor costs to determine possible economies. In our cafeteria, for example, our labor costs, divided by our total number of sales checks, show the labor cost per

person served to be 17.6 cents. This is distributed as follows:

Supervision	3.1 cents
Preparation	4.8 cents
Cleaning	4.7 cents
Service	5.0 cents

We are planning some rearrangement of equipment and scheduling that will lower our service cost by 1.2 cents, but costs in supervision and preparation may increase.

5. Selection of equipment so as to minimize handling and save labor. Lay-out to the same end, if new building is possible.

6. Proper use and maintenance of equipment to increase its life, maintain its usefulness, and ensure high standards of sanitation in the food department.

We strive to serve attractive, palatable food of maximum nutritive value at prices students can afford to pay because that is the reason for our existence as a college operation. We exist not as a service only but as an indispensable part of the educational program. Good food in adequate amounts is essential for the development of strong, sound bodies for maximum mental alertness, for resistance to certain types of infection, and for reduction of absences because of illness. The effectiveness of the entire educational enterprise depends to a great extent on the physical and mental fitness of the persons for whom it functions.

ARE STUDENTS WELL FED?

Few reports of food consumption by college students have been published. Several in which students in home economics have been subjects showed satisfactory intake. One recent study, however, of 595 freshmen, both men and women, show that only 19 per cent had good diets; men had better diets than women.

Managers of food services in the Ivy League colleges compiled records of food consumption for two monthly periods. Calculations are not ready for publication but the following facts have been revealed:

1. There is wide variation, even among food services on the same campus.

2. Most of the reports show diets to be low in one or more of the essential nutrients, calcium, protein, ascorbic acid, vitamin A from animal sources, and vitamin B. Some are poor in all constituents and also in calories.

3. Diets of students eating regular meals are better than those eating in

services that serve everything from "snacks" to meals.

Other unpublished studies of college students in which nutritional status is checked by standard laboratory methods show that students who "eat around" at various eating places are more poorly nourished than those eating in residence halls. Studies of sororities and fraternities frequently show poor diets because students save on daily food for occasional social events. One study of a football team eating at a college cafeteria showed the team to be suffering from definite dietary deficiencies.

There is high correlation between diets served and nutritional status. Since the goal of college food services is the optimum health of all students, it has always been something of a commentary on these services that athletes who must be at top physical condition have to be fed at training tables. All students need good food; some doing heavy physical exercise merely need more of certain constituents.

Some indication of nutritive value of the food consumed is the distribution of the purchases according to type of foods. Averages of distribution in several dining halls serving meals known to be nutritionally adequate are as follows:

	<i>per Cent</i>
Meats, fish, eggs, cheese, poultry.....	36
Fruits, vegetables and juices.....	22
Milk and ice cream.....	20
Fats and oils.....	06
Cereals, bread and miscellaneous.....	16

FOOD DIRECTORS AS EDUCATORS?

Colleges spend large sums on health and physical education. These programs emphasize health services and guidance, healthful school living, and health instruction. Yet in few colleges, except those offering professional training in food work of some type, is any special emphasis put upon the importance of the college food service to all three of these phases of health education. Feeding of students is still considered a business enterprise only.

Higher education has changed with the times. An administrative organization in charge of education paralleled by an administrative organization in charge of business is no longer compatible with the modern conception that the student's education includes the whole of his experiences. "Business administration thus becomes educational administration with the concept of an institutional aim." The

operation of residence halls and dining halls is thus not a solely business enterprise, it is an educational activity as well.

With this point of view we can enlist the health education, medical, and home economics staffs in instruction and guidance of all students in the knowledge of nutrition which will lead to improved eating habits. These will be reflected in better selection of food and should be good for the business side of the operation too.

We can also offer through our food services opportunities for social development. We can provide teaching material for a dozen subject matter areas such as economics, sociology, economic geography, history and busi-

ness. Food is the major concern of most people of the world; the food supply of nations determines their political stability as well as their economic destiny. If modern education is education for living, we have an important rôle in the training of the enlightened citizen.

The colleges and universities may wish to reconsider the items now carried in our operating costs in the light of our educational functions. Perhaps some of these should be carried as are similar expenses for other classrooms. Perhaps some part of the salary of the director should be carried on the instructional budget. All of these considerations would affect our costs and thus our charges to students.

SEVEN EATING CLUBS

under one roof share a common lounge

FREDERICK GLOVER

Director of Information
Stanford University, Stanford, Calif.

SEVEN EATING CLUBS, TRADITIONAL part of Stanford life since 1912, will soon be housed in an L-shaped building north of Toyon Hall, adjacent to the site of the "Little Quad," home of three of the clubs, which was razed during the war.

The 14,000 square foot structure will include for each club its own dining room with capacity for 48 men, kitchen and cook's quarters. They will share a central lounge and storage room. The lounge will be connected by doors with the two adjoining clubrooms so that the three rooms may be used for dances and other social functions.

The exterior walls are vertical redwood siding and interior walls are also finished in redwood. Rafters are exposed and the distance from the floor to the peak in the club rooms and lounge is 15 feet.

A covered, lighted walkway will run along the entire front of the building. A single concrete slab forms the floor of the building and arcade; hardwood was laid on top of the concrete in the lounge room.

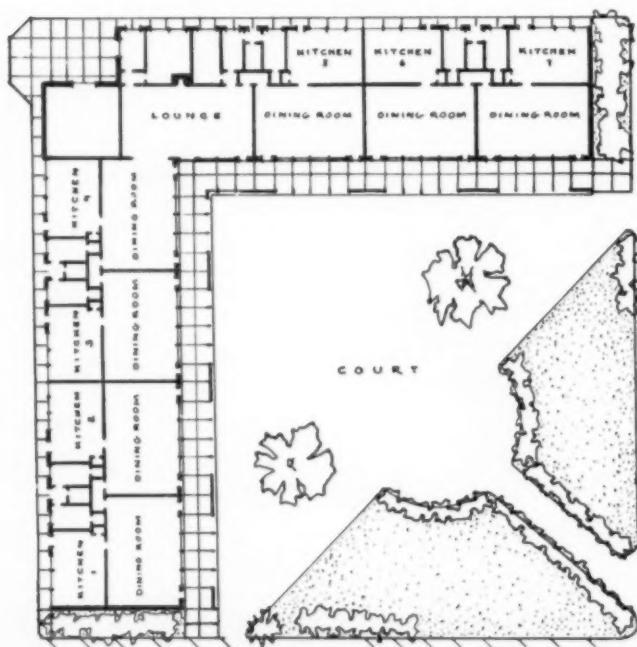
The pitch of the roof is slight—about 6 inches from the ridge to the eaves. The roof is the "built-up" type with the top covering of gravel or a substance very similar to gravel.

The eating club building committee had long cherished the hope of having a red tile roof but gave it up because of the cost.

The building, designed by Weihe, Frick and Kruse, San Francisco, will cost \$135,000. Landscaping, utilities, walks and other improvements will bring the cost to the \$183,000 total. The general landscape plan calls for a walk flanked by grass areas and lead-



Above: Artist's conception of Stanford's new eating clubs' building. Below: Each dining room in the new building is 24 by 36 feet and is lighted by windows opening onto the covered passage and by clerestory windows above the passage roof and above the kitchen roof. The lounge can be opened into one or two of the adjoining dining rooms for parties.



ing to a paved court within the inner angle of the L.

The common rooms in the corner of the L will include an office for the president of the Inter-Club Council, and an office for the inter-club manager. The latter is a new job and its first holder is Bill McPherson, who has been a prime mover during all of the five-year campaign of the clubs for a new building. Mr. McPherson not only had much to do with purchasing the furnishings and equipment, but he also established procedures relative to amortization and depreciation of the building.

The seven clubs are to repay the \$183,000 cost to the university over a 38 year leasing period, with interest at 5 per cent. This will add about \$13 to the quarterly board bill of each member, assuming a full membership of 40 for each club.

War conditions forced closing of the clubs in 1943, and two years later the Little Quad, which housed Breakers, El Campo and El Toro, was condemned and removed. The other clubs, Los Arcos, El Capitan, El Cuadro and El Tigre, had had separate rooms in Encina Commons.

The clubs resumed operations in 1946, but by then enrollment was too high to permit separate rooms and all clubs have used the same dining hall in the Commons since that time.

Maintenance of the

PHYSICAL PLANT in a reduced economy

L. H. SWEENEY

Principal Superintendent of Buildings and Grounds
University of California, Los Angeles

A GENERAL TIGHTENING OF AVAILABLE funds for all purposes within the institution naturally will affect plant maintenance standards.

Let us consider the nature and extent of the economies that may be forced upon us. These may be considered under two headings: (1) reduction of enrollment and/or of classes; (2) reduced budget without a corresponding reduction in campus use.

If reduction in enrollment resulted in an equivalent reduction in total space use, definite manpower reduction could be scheduled. Reduction in enrollment does not bear a direct relation to reduction in maintenance costs. There is little difference in the cost of operating and maintaining space that is 50 per cent used as against 100 per cent use. Enrollment alone is not a proper basis and cost per student is a relative index that must be properly weighed against plant size.

When budgets are reduced without a corresponding reduction in campus population, building use and services required, and when all phases of plant maintenance are operating at top efficiency, then a choice must be made as to which portion of the plant can best stand the reduction. We can sometimes lower our custodial services for a day or two or shift our grounds labor to some other task for a few days without too noticeable results. But once given a piece of mechanical or operating equipment, we must either maintain it properly or cease using it.

Universities and colleges have large sums invested in buildings, and these investments must be safeguarded. In many instances, buildings have been permitted to deteriorate to the point where neglected repairs have resulted in expensive replacements. This places a sudden burden on the budget, which may well curtail some important phase

of the instructional program. Of course, we must differentiate between those institutions that are on annual or biennial budget from public funds and institutions that operate from private funds and endowments and must therefore set aside certain depreciation funds.

Often lack of proper maintenance funds results from lack of understanding within the administrative offices. For instance, the superintendent who must plan the maintenance program may have apprenticed as a steam engineer, a carpenter, an electrician, or a building maintenance man, and he would therefore be partial to these interests. He probably would have little or no training in the matter of budgets. On the other hand, the budget officer may know little of the business of the mechanical plant. He may have come from the academic ranks.

In many ways the level of maintenance is determined in the architect's office when the buildings and landscaping are first designed. Often inappropriate architectural and mechanical specifications are the cause of



early maintenance problems. For instance, use of the wrong type of paint in hallways may necessitate repainting within a year. Corners cut in plumbing and heating installations may require early remodeling. Planning without thought of future maintenance is false economy.

Maintenance of an overambitious landscape development may be dis-

astrous to a limited grounds maintenance budget. Lawns, trees and shrubbery planting must be planned for long-range maintenance because when budgets are cut this is usually one of the first to suffer. Geographical location will determine the economy of initial installations. For instance, in an area where there is a great deal of natural growth and greater rainfall, automatic sprinklers may not be necessary. In a different area, where everything must be planted and grown by force, the initial cost of automatic sprinklers may be offset in two years by labor costs for hand care. It must, therefore, be determined in advance whether or not funds are to be furnished for maintenance of the planned landscaping.

When by forced economy we must lower our standards, we can get by in many different ways, even though efficiency may be sacrificed in the long run. If lawns are not watered and fertilized they will grow more slowly and reduce the cost of cutting. To bring them back to a proper condition at a later time, however, will be expensive. An economy that can and should be practiced at all times is the proper watering. The University of California has carried on experiments with moisture gauges in many types of growth, and in one large lawn area we were able to cut our watering almost in half. Flower beds are attractive but are expensive to care for because of the extra weeding and fertilizing. Careful consideration must be given as to their merit in the economy program.

A cost analysis indicated that one of the surprisingly expensive portions of grounds maintenance is the pickup of paper and litter. Most persons want their yards and property to be attractive and without litter, yet they often leave their lunch bags and school papers on the grass. If a way could be found to enlist the enthusiastic

support of student service groups in encouraging pride in keeping the campus clean, a substantial savings could be made in grounds maintenance cost.

In the matter of forced economy in housekeeping, several things can be done. First, we should strive to keep our efficiency at a high level and should take advantage of labor saving devices and procedures. A skip plan of lighter cleanup on alternate nights can be used, with the occasional use of a swing crew to bring the station back to proper standard. Too great a reduction in the frequency of routines, such as floor stripping, waxing and polishing, and window cleaning, may merely postpone the day when a major overhaul will be required. Floors in particular must not be allowed to deteriorate to the point at which replacement is required.

The use of a good quality penetrating seal for wooden floors makes it possible to clean and recondition the floor without periodic sanding. When surface materials are used and traffic lanes are worn into the surface finish, it is impossible to obtain a uniform surface without the floor's first being sanded. The seal that we have been using, particularly in our gymnasium, has a tung oil base and, besides providing a tough, long wearing surface, conditions the wood by replacing oils that have been removed in the kiln process. This fact has been proved to our satisfaction inasmuch as the floors today are as close fitting as they were at the time of installation. Even though the floor has been receiving heavy use for 20 years, it has been sanded only twice.

PROPER TRAINING NECESSARY

At this point I should like to mention the training of custodians in the proper fulfillment of their duties. While their services may not require the apprenticeship and skill of some of the building trades, proper training is necessary in the development of their trade. We can make it easier for them and better for us by showing them how to handle the tools of their trade and the proper use and application of material.

A painting program can be an economy itself, yet it is one of the things that is flexible and is often postponed until deterioration requires major work, the cost of which would more than offset proper periodic painting. Materials must be carefully selected. The use to which the surface is sub-

jected must be determined so that we do not have flat paint surfaces where there is heavy traffic and chance for soil marks. However, one economy might well be to determine the relative use of space and thereby determine areas that might be deferred for a longer time. For instance, classrooms, lecture halls, administrative offices, and similar places that are in heavy and constant use might rate high, whereas laboratories, shops and utility areas might well get along for a period without suffering greatly.

UTILITIES BIG ITEM

One of the budget items that may well concern us is that commonly referred to as heat, light and power. The utilities and the general mechanical equipment of the plant are usually classed in this category. It is frequently the item that gets the ax right after grounds care, yet it is not as easily controlled because of the many variable factors. For instance, if faculty and students could be convinced that it is not necessary to have all the lights burning in every room through which they pass, a welcome economy would be made. The same applies to control of heating costs. Even thermostats must be given a fair chance to perform their duty, for if the heat is allowed to escape through unnecessarily opened doors and windows, we are in effect rolling dollars into the outer atmosphere.

To obtain economy in a heating plant, proper maintenance is a "must." Most heating plants are supplied with a generous assortment of meters, gauges and charts. Proper evaluation of these devices is necessary as they point the way toward improved economies in operation as well as warn of deficiencies, usually before they become serious. We need employees who will observe the telltale warnings given by these devices and who will interpret the trends.

Economy in the proper control and use of materials is an obvious necessity. Cases have been cited in which inferior specifications were used in the construction of buildings because of the pressure of dollar cost, yet later to be forced to remove a steam line, water line or waste line that is sealed in a wall may cost many times more than the difference in initial cost.

Maintenance of the physical plant centers around five important M's—money, material, methods, machinery and men—the most important of

which is men. We may select the best material, adopt the most efficient methods, and have the most modern machinery and yet fail in our economy of plant operation if we do not have the interest and cooperation of manpower in our program of economical operation.

The most valuable aids to the superintendent are the next-in-line foremen who must lead the way and get the maintenance program off to a good start. The foremen must have a clear-cut understanding of management's responsibilities and problems and must display a willingness to assist in getting optimum plant operation at lowest possible cost. They should aid in cultivating congenial and cooperative relations among plant employees. In larger organizations, trade lines often are drawn finely and are the cause of jealousies among the trades, resulting in wasted manpower. These attitudes on the part of the tradesmen may be the result of their experience while working in the building trades; however, operation of physical plant calls for an entirely different attitude. Their willingness to give and take with men of other trades can build for unity and cooperation that can contribute heavily to efficient plant operation.

CONFERENCES ARE BENEFICIAL

Occasional conferences between these foremen and the plant supervisors have been found to be beneficial. These men begin to realize that they are a responsible part of management when given the opportunity to interchange ideas and express opinions. The men of each trade group also have been invited into the conference room and given an opportunity to become acquainted with the over-all policies and programs and thereby made to feel that they play an important part in the planning and program of plant operation.

Maintenance of physical plant in a reduced economy requires, first, careful investigation into efficiency. If we are constantly alert for the proper protection of the valuable assets placed in our hands, we shall be able properly to evaluate the various services required. Then, if we are faced with forced reductions, such as might result from war conditions or some other complete upset in the economic situation, we can decide which functions are of least importance and make our adjustments on that basis.

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NEWS

Enrollment Decline Overestimated . . . Construction Questions Are Answered . . . Three Veterans' Bills Before Congress . . . No Change in Student Deferments . . . Shortages Impede Building . . . To Try N.P.A. Violators

State Universities Hit Hardest in Enrollment Decline

CHICAGO. — On the basis of sample surveys of the college enrollment situation, it is apparent that the fears of a drastic decline in the enrollment of students in American colleges and universities this fall can be dissipated. Preliminary surveys by the *New York Herald Tribune*, the *New York Times*, *Time Magazine* and COLLEGE AND UNIVERSITY BUSINESS indicate that student enrollments will not decline much in excess of 10 per cent.

The survey conducted by the *New York Herald Tribune* revealed that the decline would approximate 9 per cent in comparison to enrollment a year ago.

Most severe decrease in enrollment was reported by state universities, in general, with institutions in the South hardest hit. During the G.I. boom period of enrollment the state universities reported the greatest expansion. The enrollment of women, as revealed in the *Herald Tribune* survey, has declined 3 per cent while that of men has gone down 15 per cent.

Figures released by the *New York Times* indicated that there would be about 2,250,000 students enrolled this year, representing a decrease of about 10 per cent. It was reported that fewer than 5 per cent of the entering freshmen are veterans, the lowest percentage since the initiation of the G.I. Bill of Rights.

Preregistration sampling by *Time Magazine* indicated that the possible total enrollment would be 11 per cent below that of last year. The investigations conducted by COLLEGE AND UNIVERSITY BUSINESS indicated about the same percentage generally, with men's colleges usually the ones reporting the sharpest decline. This was not true in every case, however; the

N.P.A. Furnishes Questions and Answers on Construction Under Controlled Materials Plan

University of Notre Dame reported a record enrollment of more than 5500 students.

19 Ohio Colleges Join in Fund Raising Program

COLUMBUS, OHIO. — Nineteen of Ohio's colleges not supported by taxes have joined in a new community chest type of approach toward solving their common need for adequate funds to meet today's higher operating costs.

Incorporated as the Ohio Foundation of Independent Colleges, the new agency seeks financial support on the basis of "one appeal, one gift," especially from corporations and other business and professional groups. Unless otherwise specified by donors, contributions will be divided among the participating colleges on an agreed formula of 60 per cent equally and 40 per cent on the basis of enrollment.

Membership in the foundation is open to Ohio colleges accredited in the Ohio College Association and not supported by public taxes.

J. Gordon Howard is chairman and Harold K. Schellenger is executive director of the foundation.

Speed Up Service

WASHINGTON, D.C. — A division of civilian education requirements has been set up by the U.S. Office of Education in order to speed up service to applicants for construction permits. Under the direction of Deputy Commissioner Rall I. Grigsby, the newly created division will handle matters pertaining to construction, equipment and supply needs involving critical materials for colleges, elementary and secondary schools, and libraries.

WASHINGTON, D.C. — As a result of action by the National Production Authority in placing all construction under the Controlled Materials Plan beginning with October 1, there have been many questions regarding interpretations of various regulations and orders. To clarify the situation, the National Production Authority has prepared questions and answers regarding specific applications. The following may be of interest to college and university administrators:

Q. Are there several types of authorization for building?

A. Two types. When only small quantities of controlled materials are required, a builder may proceed by self-authorization. In other cases, he must obtain an authorized construction schedule and a related allotment of controlled materials.

Q. Can anyone build a structure for recreational, amusement or entertainment purposes?

A. No builder will be granted an allotment for such structures if he is not building for the defense effort or cannot prove a hardship. The building of recreational, amusement or entertainment structures is limited virtually to the builder who can obtain no more than specified quantities of controlled materials on the open market.

Q. Can materials be obtained for repairs or maintenance of existing recreational facilities?

A. No authorization may be made for allocations of controlled materials for repairs or maintenance of existing recreational facilities. However, if such materials are available, they may be purchased from steel warehouses and other sources of distribution up to 2 tons of carbon steel and 200

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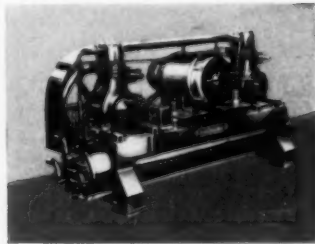
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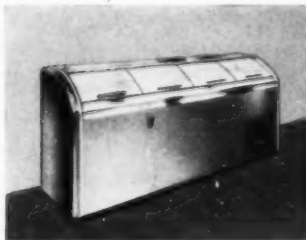
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NEWS

pounds of copper and copper-base alloys for this purpose.

Q. Are there any prohibitions on the purposes for which controlled materials may be used in building?

A. Several. Aluminum may not be used for any but industrial construction except in the case of Class B products. Copper and aluminum may not be used for decorative purposes. In addition, copper may not be fabricated, adapted or fitted on the site of the construction for certain specified construction purposes, such as cornices, downspouts and gutters.

Q. Are any products whose contents include steel, copper and aluminum exempted from building prohibitions?

A. Class B products made from aluminum, such as aluminum screens and doors, are exempted from the building prohibition.

Q. Must the owner or builder know all his building needs in advance?

A. No. Only the amounts of steel, copper and aluminum he will require. He specifies these amounts in his application for materials.

Q. If estimated needs are insufficient, can further materials be authorized later?

A. Yes, the builder may reapply for additional materials later. There is no guarantee, however, that further allotments will be made.

Q. If building needs are overestimated, what happens to leftover amounts of controlled materials?

A. The builder is asked to cancel or reduce his allotment of controlled materials.

Q. Do the construction regulations apply to agencies of municipal, state and federal governments?

A. Yes.

Q. Once authorized construction schedules and allotments are obtained, is it possible to purchase materials without use of the allotment and "DO" rating?

A. No.

Q. If building was started before the new regulations went into effect, must authorization for necessary additional materials be obtained?

A. Authorization is necessary only when the builder, for completion of his project, requires delivery after October 1 of more materials than he can self-authorize.

Q. If building has not been started before the new regulations are in effect and the builder has the necessary

materials on hand, must authorization to start construction be obtained?

A. No. But he may not use the materials to build apartment houses or recreation, amusement and entertainment facilities.

Q. If a builder has received authorization to start construction before the new regulations are in effect and has not yet started his project, must he reapply for authorization?

A. Not unless he is unable to receive delivery on the necessary materials before the new regulations are in effect. If he requires amounts larger than those permitted by self-authorization, he must file his application with the appropriate agency.

Q. Under what circumstances may a builder make application for adjustment or exception to N.P.A.'s construction orders and regulations?

A. If he feels that the regulations work an undue hardship upon him, not suffered by others in the same industry, or if he feels that the enforcement against him is not in the interest of the defense program, he may file an application for adjustment or exception.

Q. May a builder transfer his allotment of controlled materials to another builder?

A. Only if he has received written approval from the agency that gave him the allotment. If the builder has received this permission, he also must transfer his authorized construction schedule.

Q. Is there a special form used in making application for construction projects when more than specified amounts of controlled materials are used?

A. Yes. Form CMP-4C is used for most building projects. In the construction of a building, classed as recreational, entertainment or amusement on certain specified grounds, Form NPAF-24A is used also.

Q. Is another application form necessary when a builder seeks an adjustment or exception from the prohibitions on the use of copper and aluminum?

A. Form NPAF-24A is the special form for any builder seeking such adjustment or exception.

Q. Where can application forms for building projects be obtained?

A. At any regional or district office of the Department of Commerce.

Q. Where are applications for



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school, education and hospital construction filed?

A. With the Federal Security Agency.

Q. Where may further information about the new controls be obtained?

A. Visit or write to the nearest Department of Commerce field office.

Schedule Deferment Tests

WASHINGTON, D.C.—The second nationwide series of Selective Service college qualification tests will be given

Dec. 13, 1951, and April 24, 1952, by the Educational Testing Service at more than 1000 different centers. Application blanks for the test are available at all local boards.

Blanks for the December test must be postmarked by midnight, November 5; for the April test by midnight, March 10.

The U.S. Office of Education suggests that students whose academic year will end in January should apply for the December test.

Congress Has Three Bills Dealing With Veterans' Education and Training

WASHINGTON, D.C. — At present there are three bills in Congress that deal with educational benefits for persons who have served in Korea or persons who have been in active military service since June 27, 1950. In the Senate, S.1940 introduced by Senator Kerr for himself and Senator George and, in the House, Bills 5038 and 5040 deal with veterans now in service and indicate what educational benefits are recommended.

To be eligible for the educational and training benefits provided in the bills, an individual must have been in active service for at least 90 days during the period between June 27, 1950, and a later date to be determined in the future by Presidential proclamation or concurrent resolution of the Congress. This minimum period of 90 days would be exclusive of any time during which the veteran was assigned to a civilian institution for a course of education or training substantially the same as established courses offered to civilians or as a cadet or midshipman at one of the service academies. The 90 day minimum would not apply to an individual discharged or released from active service because of a service-incurred injury or disability.

A further condition of eligibility would be that the education or training of the individual must have been interrupted by his entrance into the service. This condition would be waived, however, for any individual who had not passed his 23d birthday on June 27, 1950, or the date of his entrance into the service, whichever was later.

Courses of education or training would have to be initiated within two years after the individual's discharge from Selective Service. The termination date for the educational and training benefits provided under the bills would be set at seven years after the date established by Presidential proclamation or concurrent resolution of the Congress.

A veteran meeting the eligibility requirements established would be entitled to a course of education or training of a length not to exceed his period of active service. The maximum period of education or training



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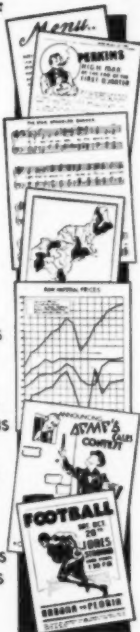
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allowable under the bills would be 48 months. Individuals whose education or training was not interrupted by their entrance into the service, but who are otherwise eligible, would be entitled to a period of education or training up to a maximum of 12 months.

Payments by the Veterans Administration to education or training institutions would be limited under the bills to one-half of the tuition and fees charged to regular nonveteran

students of the same category. In no event could the total amount paid by the veteran and the V.A. exceed that charged to other students. In addition, payments for tuition and fees by the V.A. would be limited to \$300 for a full-time course for an ordinary school year.

A single allowance would be made under the bills to cover subsistence, supplies and equipment. This would amount to \$80 a month for a veteran without dependents, \$110 a month

for a veteran with one dependent, and \$125 a month for a veteran with more than one dependent.

A veteran might enroll in any approved educational or training institution to which he could gain admission and might pursue any course of instruction except those which are classified as avocational or recreational. Within his period of eligibility the veteran would be allowed one change of course without the approval of the Veterans Administration, but additional changes of course might be allowed by the V.A. under certain conditions.



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N.P.A. Court to Hold Local Hearing on Violation of Orders

WASHINGTON, D.C. — The National Production Authority on September 20 announced the rules that will govern proceedings of its recently established administrative "court."

This court is made up of jurists who will be named hearing commissioners to act on charges of alleged violations of N.P.A. orders and regulations. Heading the court is Walter H. Foster, Boston attorney and chief compliance commissioner of W.P.A. during World War II, who was named N.P.A.'s chief hearing commissioner in July.

The rules of practice for administrative court proceedings separate the judicial and prosecuting functions within the agency and provide for full and fair public hearings. N.P.A. pointed out. The court was set up to remedy disruptions in N.P.A. priorities and allocation programs and to correct improper diversions of materials and facilities caused by violation of orders and regulations.

M.I.T. Professor Indicted

CAMBRIDGE, MASS.—Dirk Jan Struik, professor at the Massachusetts Institute of Technology, was indicted by a Middlesex County grand jury on September 12 on charges of having conspired to overthrow "by force" the governments of Massachusetts and the United States. Dr. James R. Killian Jr., president of M.I.T., announced that Prof. Struik had been relieved of all duties pending disposition of his case in the courts. The professor has been a member of M.I.T.'s faculty for 25 years.



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Charge Shortages Cause Stoppage of School Construction

WASHINGTON, D.C.—The National Conference for Mobilization of Education in a letter dated September 25 has filed a protest with N.P.A. charging that the federal agency has made inadequate allotments of steel and other critical materials for school construction and equipment and pointing out what it considered unfair treatment by N.P.A. Copies of the letter were addressed to President Truman, Charles E. Wilson, director of the Office of Defense Mobilization, and Manly Fleischmann, administrator of N.P.A. and D.P.A.

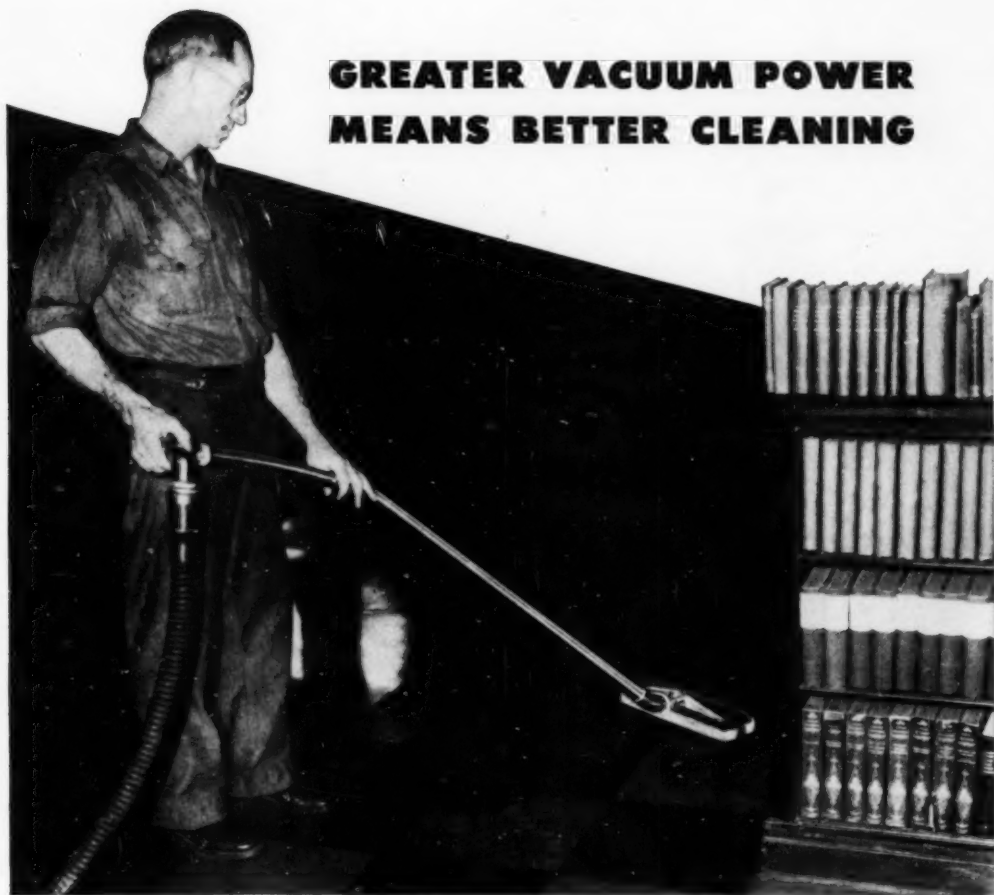
The letter of protest pointed out that only one-half of the steel needed for schools had been allocated, causing the stoppage of work on hundreds of critically needed school buildings under construction. It emphasized the fact that children cannot wait until schools are built before presenting themselves for admission, inasmuch as the law requires their attendance.

Efforts are being made by the National Conference for Mobilization of Education to press for a congressional investigation with regard to the failure of N.P.A. to consider educational construction and equipment as essential during the present emergency. Rep. Graham A. Barden, chairman of the House committee on education and labor, has appointed Cleveland M. Bailey of West Virginia to head up a subcommittee to give special attention to the problem. Sen. Hubert H. Humphrey of Minnesota, a member of the education subcommittee of the Senate committee on labor and public welfare, has indicated that he will introduce a resolution in the Senate urging that educational need be considered essential during the emergency period.

Retirement Plan for Nonacademic Staff

NEW YORK. — Retirement security for nonacademic staff members at Barnard College was announced recently by Dean Millicent C. McIntosh.

The new retirement benefits plan replaces an informal pension system, under which Barnard has been paying about \$13,000 annually in pensions. The college will pay the full cost of



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the new plan, and no contributions will be required of employees.

The retirement benefits plan will provide monthly payments after retirement to employees who are not included in the Teachers Insurance and Annuity Association, such as buildings and grounds staff, secretarial and clerical staffs, and library and administrative staffs. Retirement payments will be based on length of service and total earnings. Approximately 125 employees are currently eligible.

D.P.A. Adopts Program to Conserve Scarce Building Materials

WASHINGTON, D.C. — Because of the critical shortage of structural and reinforcing steel used in building construction, the Defense Production Administration has adopted a program devised to conserve scarce materials and thus allow for more construction in 1952 with the materials available.

To accomplish this, a set of standard design practices was recommended by the facilities and construction bureau of the National Production Authority, for use by architects and engineers in the construction industry. It suggests that if builders want to minimize delay, they should make use of the recommended construction conservation practices.

Among the recommendations included in the memorandum released by D.P.A. are the following:

1. Structural and reinforcing steel may be conserved in many one, two or even three story buildings by using wall bearing masonry construction in lieu of structural steel frame or reinforced concrete frame.

2. For many types of structures, savings of approximately 50 per cent in steel content may be made when reinforced concrete replaces structural steel, and even greater savings are possible when timber is used instead of structural steel or reinforced concrete.

3. Many steel conservation measures are available in reinforced concrete construction, including flat slab construction instead of beam and girder, pan or masonry filler types; also the use of square or rectangular columns with ties instead of smaller columns with spirals.

4. Fireproofing requirements are

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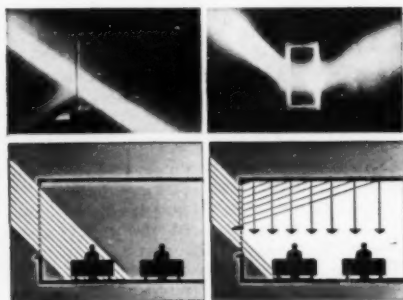
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NEWS

important for certain kinds of occupancy and for certain building locations, but in many instances fire-proofing of adequate resistance may be obtained by specific use of noncritical materials.

5. For many uses lightweight concrete and plaster aggregates may be successfully used to replace heavier aggregates, and thus lower quantities of structural or reinforcing steel needed for load-carrying members and foundations.

6. Alloys for the manufacture of low alloy, high alloy and stainless steels are generally in extremely short supply.

Discuss Educational Television at Meeting

CINCINNATI.—Sessions of the 37th annual meeting of the Association of Urban Universities at Cincinnati on October 29 will be devoted in large measure to problems involved in edu-

cational television, according to an announcement by Dr. David D. Henry, president of Wayne University and secretary-treasurer of the association.

The one-day meeting will feature informal discussions in the morning with an address at noon by Francis J. Brown, staff associate of the American Council on Education, on "News Notes from Washington, 1951."

The afternoon session will be devoted to a discussion of educational television with the panel discussion or symposium being led by Kenneth G. Bartlett of the office of public relations, Syracuse University, on "Problems in Operating Educational Television Studios"; Armand L. Hunter, director of television development and research at Michigan State College, on "Co-operating With Commercial Stations in Educational Television," and a presentation by Richard B. Hull, radio-TV director of Iowa State College, on "Owning and Operating a Television Station; National Background of Educational Television."

Arthur S. Adams, president of the American Council on Education, will conclude the day's program with his address at the evening session on the subject "Different Ends: Different Means."



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Steel Shortage Affects Education

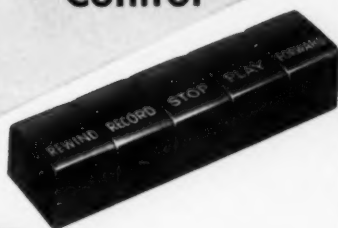
WASHINGTON, D.C. — The U.S. Office of Education reports that steel allocations for school, college and library buildings during the fourth quarter of 1951 will provide for only 1624 of the 3260 construction projects for which applications were filed with the U.S.O.E. The remaining 1636 projects will get no steel during the fourth quarter.

The Office of Education had asked N.P.A. for allocation of steel based on actual applications received for steel for essential educational construction during the fourth quarter of 1951. The requested allotment of 196,580 tons of steel was cut by N.P.A. by approximately 50 per cent, to 94,300 tons. The Office of Education appealed the decision and subsequently received a supplemental allotment of 10,000 tons.


The present situation will make it necessary to cut back, and in many cases to defer, plans for construction of education facilities.

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NEWS.

Resigns Following Athletic Scandal

WILLIAMSBURG, VA.—Dr. John E. Pomfret, president of the College of William and Mary for the last nine years, resigned in mid-September following severe criticism by the board of visitors.

An investigation of irregularities in the athletic department revealed that athletes had received academic credit for work they did not perform and

that grades had been altered on incoming high school transcripts to make athletes eligible for admission.

The board declared that on May 26 President Pomfret had recommended a full professorship for the athletic director, despite the fact that the administration was conducting an investigation of the department at the time.

"No mention of any of the irregularities referred to was made to the board" by Dr. Pomfret or anyone else, the board said.

NAMES IN THE NEWS

J. Kenneth

Robertson, former business manager of Taft School, Watertown, Conn., has been named controller of Trinity College, Hartford, Conn. He succeeds **Joseph W. Getzen-danner Jr.**, treasurer, who resigned on October 1 to accept a position as assistant vice president and assistant controller of the National City Bank of Cleveland. **A. Henry Moses**, a member of the board of trustees of Trinity College, will serve on a voluntary basis as treasurer of the college.



J. K. Robertson

Dr. Robert D. Calkins, director of the General Education Board of the Rockefeller Foundation, has been named to succeed **Dr. Harold G. Moulton** as president of the Brookings Institution, Washington, D.C. Dr. Moulton will retire next July 1, after having served as president of Brookings since 1922.

Dr. Frederic W. Heimberger, dean of Ohio State University's college of arts and sciences, has been named vice president of the university in charge of faculty and curriculums. He succeeds **Dr. Harlan Hatcher**, who was recently named president of the University of Michigan.

Dr. Lewis Web-

ster Jones, president of the University of Arkansas, has been named to succeed

Dr. Robert C.

Clothier as president of Rutgers University. Dr. Clothier, who took office as the 14th president of Rutgers in June 1932, will retire.



Lewis W. Jones

Sister Mary Elizabeth Clare, president of Holy Names College at Seattle, Wash., has been appointed president of Marylhurst College, Marylhurst, Ore. She succeeds **Sister Mary Rose Augusta**, who has been appointed dean of Holy Names College at Spokane.

Rev. Evan H. Bergwall, pastor of the First Methodist Church, Kendallville, Ind., has been appointed president of Taylor University, Upland, Ind. He succeeds the **Rev. Clyde W. Meredith**, who recently resigned. **Paul D. Keller** has been named business manager of the college.

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*"Terrazzo as Affected by Cleaning Materials" by D. W. Kessler (National Bureau of Standards). Originally published in *Journal of the American Concrete Institute* September, 1948.

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NEWS.



Charles Garside

Charles Garside, president of the Associated Hospital Service of New York, has been appointed acting president of the State University of New York, succeeding Dr. Alvin C. Eurich. Dr. Eurich resigned to join the administration of the Ford Fund for the Advancement of Education. Mr. Garside

will continue to hold his position with the Associated Hospital Service.

W. A. Heffelfinger, purchasing agent of the University of Arkansas, has been named administrative assistant of the Arkansas Agricultural Mission to Panama. The mission is a part of the Point 4 program to aid underdeveloped countries. Mr. Heffelfinger will handle the fiscal details of the mission and the National Institute of Agriculture at Divisa, Panama, where the group will be stationed.

Dr. C. O. Williams, assistant dean of admissions and examiner of Pennsylvania State College, has been named dean of admissions and registrar at the college. Dr. Williams succeeds Royal M. Gerhardt, who retired.



C. O. Williams

Dr. Henry T. Heald, president of Illinois Institute of Technology, has been appointed chancellor of New York University and will succeed Dr. Harry Woodburn Chase, who recently retired. Dr. Heald is expected to assume his new duties early in 1952.

Elmer W. Glick has been named acting treasurer of Lehigh University, Bethlehem, Pa., succeeding John I. Kirkpatrick, who resigned to accept appointment as controller of the University of Chicago.

Robert W. Feyerharm, secretary-treasurer of Yankton College, Yankton, S.D., has been named assistant treasurer of Carleton College, Northfield, Minn.



R. W. Feyerharm

He was assistant to the president of Yankton College for six years and has been secretary-treasurer since 1940. His appointment is effective immediately.

Carroll Rikert Jr. of the Brown University accounting staff has been appointed controller of the university. For the last five years Mr. Rikert has been in charge of general accounting. Gordon L. Parker, treasurer of Brown, announced that the new appointment completes a reorganization of the fiscal management of the institution. F. Morris Cochran will continue to serve as deputy treasurer of the university in addition to his function as vice president and business manager. John D. Price has been named assistant controller and Agnes K. Hindmarsh, assistant to the controller. With the departure of Lester L. Lapham, who has entered the real estate business, the office of bursar has been discontinued.

Dr. Robert Lee Flowers, chancellor and former president of Duke University, died recently at 80 years of age. He served as president of the university from 1941 to 1948, when he



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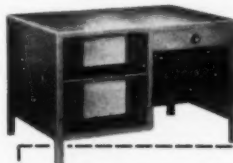
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NEWS.

was appointed to the chancellorship. Dr. Hollis Edens succeeded him as president in 1949.

Jessie M. Holton, former principal and co-founder of the Holton-Arms School in Washington, D.C., died recently at 84 years of age. She had been principal of the school from 1901 to 1946.

Fredora Blanche Draper, director of public relations at Western Michigan College, Kalamazoo, died recently after an illness of several years.

DIRECTORY OF ASSOCIATIONS

Association of College and University Business Officers

Central Association

President: Laurence R. Lunden, University of Minnesota; secretary-treasurer: C. C. De Long, University of Illinois.

Convention: April 20-22, 1952, Ohio State University, Columbus.

Eastern Association

President: D. L. Rhind, Massachusetts In-

stitute of Technology; secretary-treasurer, Irwin K. French, Middlebury College.

Convention: Dec. 9-11, Chalfonte-Haddon Hall, Atlantic City, N.J.

Southern Association

President: Gladys Barger, Lenoir-Rhyne College; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Western Association

President: Nelson Wahlstrom, University of Washington; secretary-treasurer: James M. Miller, University of California, Berkeley.

American Association

President: Glenwood E. Jones, Shaw University; secretary: L. H. Foster Jr., Tuskegee Institute.

Convention: May 1952, Howard University, Washington, D.C.

Association of College Unions

President: Frank Kuenzel, University of Michigan; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention: April 1952, Oklahoma A. & M. Union, Stillwater, Okla.

Association of Physical Plant Administrators of Universities and Colleges

President: Walter W. Kraft, University of Oklahoma; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

Convention: May 1952, University of Michigan.

American College Public Relations Association

President: Stewart Harnal, University of Oklahoma; secretary-treasurer: James W. Armsey, Illinois Institute of Technology, Chicago.

College and University Personnel Association

President: Boynton S. Kaiser, University of California; secretary-treasurer: Ruth Harris, University of Illinois.

National Association of College Stores

President: George Racine, Northwestern University; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

Convention: 1952, Miami.

National Association of Educational Buyers

President: Jamie R. Anthony, Georgia Institute of Technology; executive secretary: Bert C. Ahrens, 45 Astor Place, New York, N.Y.

Convention: May 1952, Washington, D.C.

National Federation of College and University Business Officer Associations

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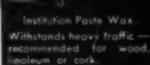
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Director of Residence Halls—31; married; B.S. in administration; experienced in student housing, residence halls and all phases of food service; available upon sufficient notice; additional information promptly supplied. Write Box CW52, COLLEGE AND UNIVERSITY BUSINESS.

Purchasing Agent—Now employed assistant purchasing agent; large eastern university; college graduate; young; married; veteran; experienced all phases college purchasing and procedures; capable organizer; desire responsible position. Write Box CW66, COLLEGE AND UNIVERSITY BUSINESS.

Statistician-Chartist—15 years' statistical experience; last 4½ years specializing in design and implementation of charts for industrial organizations involved in litigation under anti-trust laws and Federal Trade Commission Acts; academic knowledge of accounting; varied administrative and supervisory experience; desires position as statistician-chartist or in administrative capacity in college business office, preferably but not necessarily in New England states. Write Box CW62, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds—Professional engineer with considerable experience, desires connection with university or college; will also teach engineering subjects; available immediately; eastern location preferred. Write Box CW 67, COLLEGE AND UNIVERSITY BUSINESS.

POSITIONS OPEN

Superintendent of Buildings and Grounds—Desire engineer with plant administration experience for organization and management of extensive building program of midwestern college with 100 acre campus; enrollment of 1000 students. Write Box CO 56, COLLEGE AND UNIVERSITY BUSINESS.

University Treasurer—Chief Business Officer—State University in East; trustees will consider candidates with adequate experience in financial and business management. Write Box CO55, COLLEGE AND UNIVERSITY BUSINESS.

FOR SALE

100 MURPHY BEDS (single, without mattresses) in good condition. Will sell single or in number lot.

Sister M. Roberts
Milwaukee 16, Wis.
MOUNT MARY COLLEGE

The rates for advertisements are: 10 cents a word; minimum charge, \$2.50.

Forms close 25th of month preceding date of issue

Address replies to

**COLLEGE AND UNIVERSITY
BUSINESS**

919 N. Michigan Ave., Chicago 11, Ill.

WEBSTER ELECTRIC *Program and Sound Distribution Systems*

are complete units meeting all requirements.

FACTORY ASSEMBLED . . . PRE-TESTED . . . READY TO USE



this two-channel console includes . . .

Intercommunication . . . Radio Reception . . .
Phonograph and Program Distribution

This WEBSTER ELECTRIC equipment makes two way communication possible with every room in the school, individually or collectively . . . announcements, short talks and radio or educational programs can be piped direct when they are of special interest.

Here is another aid to modern education, opening new possibilities for improved teaching methods. Two channels are provided for program distribution, plus a separate channel for intercommunication. The program distribution offers AM-FM radio

reception and phonograph recording on one with general announcements and sound reinforcement, plus the use of phonograph reproducer on the other, if desired. Both program channels are equipped to operate with a WEBSTER ELECTRIC "Eko-tape" tape recorder.

Talk to the nearest WEBSTER ELECTRIC dealer about the experience of other schools and learn all the details of this modern school equipment.

Webster Electric Company, Racine, Wisconsin.
Established 1909.

WEBSTER ELECTRIC
RACINE ♦ WISCONSIN

"Where Quality is a Responsibility and Fair Dealing an Obligation"

New! **BAUSCH & LOMB** *Dynoptic* **LABROSCOPES**



THE WORLD'S FINEST LABORATORY MICROSCOPES

Set higher standards for comfort, accuracy and speed in microscopy with new "Years-Ahead" advanced design features.

● New *Duo-rol* LOW POSITION Ball-Bearing and Roller Fine Adjustment—critical focus, easier and faster; less wear, longer life. New *Roto-sphere* BALL-BEARING Nosepiece—and most accurate parcentricity and smoothest rotation ever.

New Mechanical Stage with LOW POSITION Controls for comfortable operation; 10X Achromatic Objective; New type Variable Focus Condenser for low-cost models; New attachable Integral Illuminator. AND—many other new and service-proved advantages exclusive with or pioneered by Bausch & Lomb . . . further proof that *the world's finest instruments are made in America—by Bausch & Lomb.*

Write for a demonstration and for complete information on this new line of microscopes. Bausch & Lomb Optical Co., 767-10 St. Paul St., Rochester 2, N. Y.



CLIP AND MAIL THIS COUPON TODAY

BAUSCH & LOMB OPTICAL CO.
767-10 St. Paul St., Rochester 2, N.Y.
Please send me complete information on the new B&L Dynoptic Labrosopes.
☐ I would like a demonstration.
NAME _____
SCHOOL OR FIRM _____
ADDRESS _____
CITY _____ STATE _____

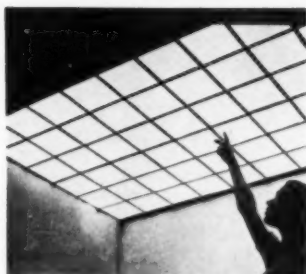
WHAT'S NEW

October 1951

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 88. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Panelless Lighting



Thin, flat sheets of glowing glass are employed in a new and unusual method of producing light which is being introduced by Sylvania. It operates at extremely low cost on conventional alternating current, is cool to touch and can be built-in. Sheets of this glowing material can be used for many purposes: to provide luminous ceilings in place of conventional lighting fixtures, as stair risers and switch-plates in otherwise darkened areas, as signs to indicate departments and individuals, for wall areas, clock faces, table tops and other adaptations.

This "area" light source is a luminous kind of condenser which Sylvania calls "Panelite." The technical term for this new lighting development is electroluminescence. It consists of a special sheet of conductive glass, on which is placed a "phosphor-dielectric" coating, and a layer of vaporized aluminum. The two coatings add less than a hundredth of an inch to the glass itself. Wires are connected to the edges of the sheet to pick up current directly from 110 volt 60 cycle ordinary power. For greater brightness a small inexpensive transformer is introduced in the circuit to bring the voltage up to 400-500 volts. The panels will be made in a variety of colors, although only a brilliant green is at present commercially available. Sylvania Electric Products, Inc., Dept. CUB, 1740 Broadway, New York 19. (Key No. 1)

Laminated Gym Seating

Horn Folding Gym Seats are now available with three types of laminated boards for seat, foot and risers. To eliminate the possibility of wrping, these

boards are built up of kiln dried Douglas fir with the ends of all boards inlaid with a wood spline to prevent splitting. The method of building up the boards eliminates the natural stresses and pitch pockets and gives a warp free board. They are offered in built up rail type board for maximum ventilation, laminated built up board with flush surface and laminated built up board with grooved surface. Horn Brothers Co., Division of Horn Industries, Dept. CUB, Fort Dodge, Iowa. (Key No. 2)

Heavy Duty Vacuum Cleaner

Model WD-23 is a new, quiet, wet-dry vacuum cleaner for institutional use. Powered by a 1 h.p. Universal type



motor, moisture proof and rubber mounted, the unit picks up water, dirt and dust with a water lift of 63 inches. The 15 gallon tank of 18 gauge steel is reinforced for strength and both interior and exterior are porcelain lined to prevent rust and corrosion. The unit is readily mobile as it is mounted on four free-running, ball-bearing, swivel type rubber casters.

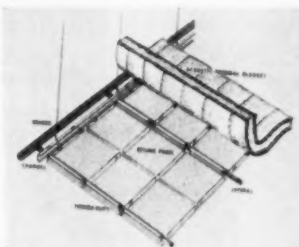
A special dump valve on the tank provides for quick, easy draining, thus avoiding any possible injury to the operator. A newly developed positive action shut-off device warns the operator when the tank is filled to capacity. A protective, non-marking rubber bumper surrounds the entire base of the machine as a protection to walls and furniture. The new Clarke Model WD-23 is fur-

nished complete with hose, wand, water pick-up squeegee tool and pick-up tool for carpets. Also available are tools for all special cleaning needs. Clarke Sanding Machine Co., Dept. CUB, Muskegon, Mich. (Key No. 3)

Acoustical-Radiant Ceiling

Radiant heating is combined with acoustical correction in the new Burgess-Manning radiant ceiling. The ceiling brings radiant heating from above and distributes it evenly to all parts of the room. The entire aluminum ceiling radiates heat. Ceiling panels are easily snapped into place and removed for inspection or other services. Installation is easy and may be made in new or remodeled construction. The perforated aluminum panels and heating units are attached to channels suspended from the ceiling by 3/16 inch pencil rods or their equivalent. Hot water flows through the two main "headers" connected by laterals spaced one or two feet apart which heat the entire ceiling. The ceiling may also be used to provide summer air conditioning with cold water circulating through the system and absorbing heat.

An acoustical thermal blanket is installed wall to wall over the heating coil. This blanket absorbs a large percentage of the noise and also acts as a thermal insulator and vapor barrier. Water is heated by a conventional boiler and the ordinary room thermostat is usually sufficient to regulate the temperature. Installation may be handled by local contractors but materials, which are prefabricated and need no alteration, are provided by the manufacturer, including engineering service. The ceiling is the



invention of Gunnar Frenger, Oslo, Norway, Burgess-Manning Co., Dept. CUB, Libertyville, Ill. (Key No. 4)

(Continued on page 76)

WHAT'S NEW . . .

Quantity Jelly Packaging

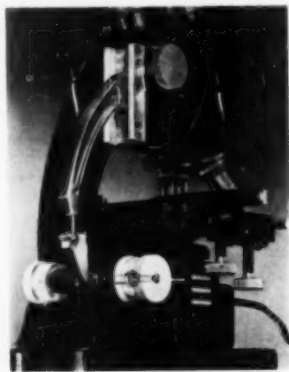
Six of the most popular bulk jellies in the Heinz line are now being made available in a new four-pound jar size for quantity users. Convenience, low inventory investment and greater variety are some of the advantages claimed for this new packaging for institutions not requiring the No. 10 tins. Varieties available in the new size include elderberry, grape, red currant, apple, blackberry and mint-flavored apple jelly. **H. J. Heinz Company, Dept. CUB, P. O. Box 57, Pittsburgh 30, Pa. (Key No. 5)**

Laboratory Microscopes

A new line of laboratory microscopes features ball bearings and rollers throughout the focusing system. Called Synoptic Labrosopes, the new instruments have a low position fine adjustment and a mechanical stage with low controls that enable the operator, after setting the coarse adjustment, to rest his hand on the table and manipulate the other controls in a relaxed position.

Effortless turning of the focusing knob is assured by a ball bearing on the horizontal shaft of the low position fine adjustment which also absorbs thrust. Two rollers on the lever transfer horizontal movement of the screw to vertical travel

of the focusing slide. The slide is fitted with ball bearings assembled in pressure plates. The nose-piece has ball bearings around its outer rim and a ball stop. Additional substage equipment includes a Variable Focus Condenser in a tubular



mount which does not require a rack and pinion substage. A substage illuminator is available which can be used integrally with the Labroscope in place of the mirror or separately. The new equipment is the result of several years of research. **Bausch & Lomb Optical Co., Dept. CUB, 635 St. Paul St., Rochester 2, N. Y. (Key No. 6)**

(Continued on page 78)

Flat Wall Paint

The new Americana line of flat wall paints is formulated to dry streak-free. The paint is an oil-type coating, applicable to plaster, wood, wallboard and similar surfaces. It may be applied by brush or roller coater after the surface has been properly prepared and sealed. It is easy to handle, producing a smooth finish with a soft sheen that diffuses light. Nine basic colors and white are used to produce 77 color choices ranging from deepest tones of blue, green and gray to delicate pastels. **E. I. du Pont de Nemours & Co., Inc., Dept. CUB, Wilmington 98, Del. (Key No. 7)**

Electronic Control

A new electronic control has been announced for engineered steam heating systems. All control panels for Dunham systems are now equipped with the RST-EA-A Electronic Amplifier. The amplifier indicates and controls temperature changes and replaces a galvanometer as nerve center for the panel. The amplifier gives more reliable operation since it has fewer parts and maintenance is more economical. **C. A. Dunham Co., Dept. CUB, 400 W. Madison St., Chicago 6. (Key No. 8)**

That Wayne Gymstand Really Gets Around

WAYNE IRON WORKS

146 N. PEMBROKE AVE.

WAYNE, PENNA.

REPRESENTATIVES IN
42 CITIES



"Wayne Stands
for Safety"

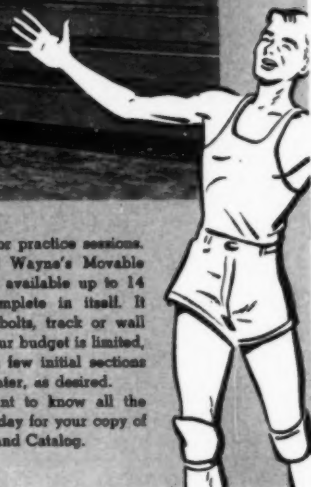
You'll like the adaptability of Wayne's Movable Rolling Gymstand . . . for each section can be quickly and easily moved to any desired location on the same floor level. Rubber wheels on the trucks give full protection to varnished gym floors.

Too, you'll appreciate the space-saving utility these stands provide. Like the Wayne fixed type gymstand, when they're in closed position, you have the extra floor space that's needed for

large gym classes or practice sessions.

Each section of Wayne's Movable Rolling Gymstand, available up to 14 rows deep, is complete in itself. It requires no floor bolts, track or wall fixtures. And, if your budget is limited, you can start with few initial sections and add to them later, as desired.

Since you'll want to know all the details, write us today for your copy of the Wayne Gymstand Catalog.



Get these proved TEACHING ADVANTAGES of **IBM** Electric Typewriters



1. **Faster Technique Development.** The easy action of IBM Electric keys helps students build word patterns quickly.
2. **Simpler Operation.** The same light touch is used on regular and service keys . . . including carriage return. Eyes stay on copy.
3. **Builds Confidence Quicker.** No matter what the student's touch, his copy is uniformly clear and black. He is encouraged, has more confidence, improves faster.
4. **Increases Speed and Accuracy.** A classroom test, for example proved that students taught on IBM's attained 39% greater gross speed, and 74% greater net speed.
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INTERNATIONAL BUSINESS MACHINES

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Teaching Aids*

IBM, Dept. CU-5

590 Madison Ave., New York 22, N.Y.

☐ Please send booklet, "Electric Typewriters in Education," and complete educational kit.

☐ We'd like to see your new full-color sound movie "Electric Typing Time" on _____ (date)

Name _____

School _____

Address _____

City _____ State _____

WHAT'S NEW . . .

Business Machines

Two new business machines are being introduced by Underwood. The new Underwood Sundstrand Printing Calculator features a simple ten-key keyboard for touch operation with automatic printed multiplication, division, addition and subtraction, as well as many other improvements.

The new low priced all-purpose Underwood Sundstrand Accounting Machine, known as Model E, has two cross-footers for accounting application flexibility, interchangeable control plates for automatic operations and accuracy and a simple ten-key keyboard designed for operation by the touch system. Both new machines are designed for simplicity of operation, are desk machines, and have new square molded figure keys. Underwood Corporation, Dept. CUB, 1 Park Ave., New York 16. (Key No. 9)

Laboratory Glassware Washer

Time and energy of personnel are saved with the new Fisher Laboratory Glassware Washer. It takes six large basketfuls of laboratory glassware at one loading, including bottles, funnels, culture tubes, flasks, pipettes, Petri dishes and microscope slides, and delivers them thoroughly washed and rinsed and

chemically clean in a minimum of time.

Designed after a survey of glassware problems, the first model of the washer was thoroughly field tested. The operator merely loads the proper size of basket, attaches lid, places basket on drum and the drum carries the baskets into the washing solution and out again



to drain. The special revolving washing action removes salt deposits, blood clots, agar, precipitates, rings and even wax pencil marks. For added efficiency numerous small jets at one end of the tank admit hot, cold and warm water. Glassware can thus be given hot and cold rinses as desired and, in the steam-heated model, can be treated with live steam. All operation controls are on a simple panel in easy reach of the operator. Two models are available, a steam-

heated instrument and an electrically operating instrument. The baskets and holders required to meet special needs are available separately. Fisher Scientific Co., Dept. CUB, 717 Forbes St., Pittsburgh 19, Pa. (Key No. 10)

Dirt Repellent Paint

A new ingredient, known as Syncon, which repels dirt, gives the new Staize-Clene paint the ability to resist heavy stains, such as grease, lipstick, medications, ink and the like, as well as ordinary dust, dirt and other airborne deposits. Ordinary dirt and stains can be readily washed off without leaving a smudge since the Syncon prevents dirt and grime from penetrating into the pores of the paint film. The paint stays clean longer and is easily washed clean.

Staize-Clene covers most surfaces with one coat and can be brushed, sprayed or roller coated. It can be tinted with colors in oil and is available in non-yellowing white and eye rest colors. It is offered in a full line of finishes and undercoaters; flat enamel, semi-gloss enamel, high-gloss enamel, enamel undercoater and pigmented primer sealer. The new paint has been developed especially to reduce maintenance painting costs. Enterprise Paint Mfg. Co., Dept. CUB, 2841 S. Ashland Ave., Chicago 8. (Key No. 11)

(Continued on page 80)



No. 326 Table—An exceptionally sturdy table with genuine NATCOLITE top, surfaced with NEVAMAR—resistant to cigarette burns, stains, boiling water. Won't chip or dent. Easy to keep clean.



NATCOLITE SEATING

FOR CAFETERIAS • LIBRARIES
CLASSROOMS ASSEMBLY ROOMS

NATCOLITE tables and chairs are ideally suited to the needs of schools and colleges . . . wherever good looks, comfort and durability are essential.

No. 643 Chair—A sturdy saddle seat chair with many exclusive features of construction. Built for lasting service.

Complete line of upholstered chairs and juvenile chairs.

Consult your equipment dealer or write for further information.



NATIONAL STORE FIXTURE CO., INC. 2301 HOLLINS ST. • BALTIMORE 23, MD.



MOSINEE TOWELS HELP YOU GET MORE EFFICIENT USE of towels in your washrooms

You will want to stretch your towel supplies as far as possible this year to help avoid shortages. Remind students repeatedly that ONE Mosinee Towel usually is sufficient...because this pure sulphate towel has greater drying capacity. ONE does the work of many less capable towels. MOSINEE Towels and MOSINEE Towel Dispensers assure most efficient use.

Now let's reduce towel-waste!

BAY WEST PAPER CO.

Green Bay, Wisconsin

A Division of Mosinee Paper Mills Co.

MOSINEE

Sulphate Towels

PREP-TOWLS • ZIP-TOWLS • TRIM-TOWLS
TURN-TOWLS • ROLTOWLS • BATH-TOWLS

Vol. 11, No. 4, October 1951

TO CHECK THE QUALITY OF A

Cabinet Shower

MAKE THESE SIMPLE TESTS

Check the Name Plate

If it's a Weisway, you can be sure there's quality in every design detail—even in the hidden parts.

Shake it! Bump it!

Does it clatter and rattle—a makeshift assembly? In a Weisway thick gauge materials are corner sealed in compression-tight joints.

Check the Wall

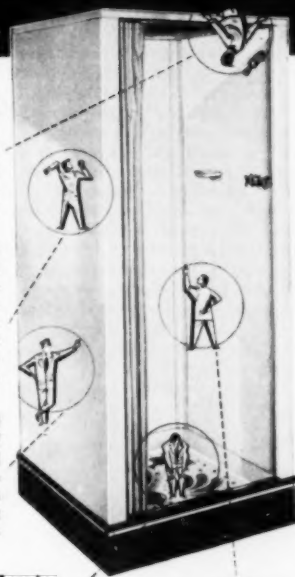
Weisway walls are of Bonderized, galvanized steel with two separately baked-on coats of enamel, assuring years of lustrous beauty.

Examine the Receptor

Is it deep with high sides to give protection against leaking? The answer is "yes" with Weisway exclusive Foot-Grip, No-Slip receptor of vitreous porcelain enamel, safe, sanitary, easy-to-clean.

Run Your Fingers Along the Inside Joints

In a Weisway Cabinet Shower all joints are pressure-tight. No dirt-catching cracks; no need for mastic or calking. Weisways are permanently leakproof and dependable.



● The closer you check details of Weisway quality the more you'll see why Weisways give you long years of leakproof, trouble-free service. It's easy to modernize with complete, self-contained Weisway baths. Ask your plumbing contractor for details, or write to the factory.

Weisway

HENRY WEIS MFG. CO., INC.

1039 Weisway Building, Elkhart, Indiana

WHAT'S NEW . . .

Magnetic Recorder-Projector

Commentary or musical background can be directly recorded magnetically on the edge of 16 mm. picture film with the new Model "400" 16 mm. Magnetic Sound Projector recently introduced. The new equipment makes available the special advantages of magnetic recording and reproduction in many applications of 16 mm. film. Revision or variation of sound treatment on the film can also be effected immediately since the sound tape can be quickly erased and re-recorded without delay or processing. The new recorder-projector offers high quality sound, unusual flexibility and operating convenience and savings in time, film and processing costs.

The equipment features simplicity of operation since it is necessary only to turn a switch and talk or play music into a plug-in microphone to record. After recording is completed, another control may be set for immediate playback. If revisions are needed or if re-recording of the film is desired, an electronic erase head may be activated by another simple control. A mechanical safeguard is incorporated to prevent accidental erasing. Recording on the new unit requires no special preparation or studio facilities.

Magnetic recording on 16 mm. film is made possible by a new film process. A

strip of magnetic oxide 1/10 inch wide is coated on the edge of a 16 mm. film. It can be placed on the film either before or after it has been used for picture taking and even if it already has an optical or photographic sound track.



Radio Corporation of America, RCA Victor Div., Dept. CUB, Camden, N.J. (Key No. 12)

Refrigeration Machines

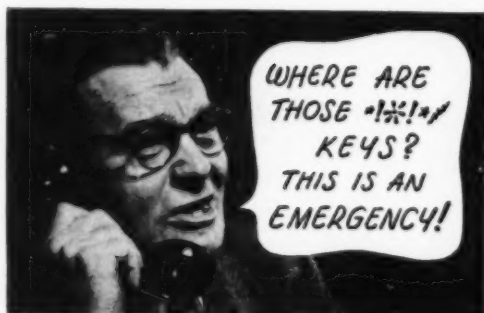
Two models of reciprocating refrigeration machines have recently been introduced for air conditioning and refrigeration use in the 100 to 150 h.p. range. Designated as the Carrier 30B, the machines are furnished as a complete package with compressor, cooler and condenser and all inter-connecting piping.

(Continued on page 82)

fittings, safety and capacity controls, gauge board and cooler and condenser stands included. Precise matching of components for maximum operating efficiency and economy is ensured by careful pre-engineering. The machine is particularly suitable for chilling water for air conditioning purposes. Carrier Corporation, Dept. CUB, Syracuse, N.Y. (Key No. 13)

Liquid Cleaner and Sanitizer

An equally effective cleanser in hard or soft water, leaving no residual soap film, West Sanikleen is a new odorless general purpose liquid cleaner and sanitizer, combining a quaternary ammonium compound and a compatible synthetic detergent of high cleansing properties. It can be used for cleaning and sanitizing walls, windows, dishes, glassware, eating utensils and floor surfaces of wood, concrete, linoleum, asphalt tile, terrazzo and similar materials. When used according to directions, the sanitizing properties of the quaternary ammonium compound ingredient reduce the amount of bacterial contamination. Surfaces may be mopped, scrubbed or brushed with the solution. West Disinfecting Co., Dept. CUB, 42-16 West St., Long Island City 1, N.Y. (Key No. 14)



Read how **MOORE KEY CONTROL*** can save you money and man-hours

You owe it to yourself to investigate this modern system of key control. It saves money year in and year out by eliminating expensive repairs and replacement of locks and keys. What's more, it guarantees security, convenience and privacy. No wonder Moore Key Control is used throughout schools, institutions, hospitals, industry, government, transportation, communications, housing . . . wherever keys are used. Send for details today!

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TRADE MARK

Mail Coupon
today for
Free Booklet

P. O. MOORE, INC., Dept. C-3
300 Fourth Ave., New York 10, N. Y.

Please send literature outlining savings possible with **MOORE KEY CONTROL**.

Name _____

Address _____

City, State _____

REALOCK FENCE

GIVES
Positive
PROTECTION

Positive protection for your grounds and property is assured with Realock Fence. In addition, all fittings, hinges and locking devices have bolts on the inside, secure from outside tampering.

Noted for its rugged construction and long-lasting weather resistance, Realock Fence can be depended upon for years of dependable, trouble-free service.

For additional information write our nearest sales office or consult your classified telephone directory.

THE COLORADO FUEL & IRON CORPORATION
Denver, Colorado

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WICKWIRE SPENCER STEEL DIVISION
Buffalo, New York

REALOCK FENCE

THE COLORADO FUEL & IRON CORPORATION

BRANCHES IN ALL KEY CITIES

ACCOMMODATE YOUR
FOOTBALL CROWDS

SAFELY—
ECONOMICALLY
with



THERE'S STILL TIME TO ORDER *Universal* PORTABLE WOOD BLEACHERS

Time is short, but you still can increase your seating facilities with *Universal* Portable Wood Bleachers. Long famous for safety, structural strength, simplicity of assembly, comfort, long life, and economy . . . these bleachers provide everything you want and need for both indoor and outdoor seating. They are easily erected and easily dismantled, yet built to hold more than four times the rated live weight load; always meet and usually surpass the most rigid requirements. For prompt action, just select the plan you need from the table of most popular sizes below (many other sizes also available) or

TABLE OF SEATING CAPACITIES				
PLAN	No. 1	No. 2	No. 3	No. 4
Length	60 ft.	120 ft.	180 ft.	240 ft.
Tiers				
High	5	10	10	15
Capacity	220	880	1320	2640

send us your specifications . . . either area dimensions or number of seats required. *Universal* engineers will give you a cost estimate immediately. Complete catalog also free on request.

Universal
BLEACHER COMPANY
606 SOUTH NEIL STREET • CHAMPAIGN, ILLINOIS
Bleacher Experts for Over 30 Years

LET **Clarke**
SHOW YOU . . .

*A better way
of floor care!*



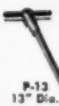
Only actual use can demonstrate the overall superiority of Clarke maintenance machines. We want to show you — on your own floors — why Clarke machines have long been preferred for all phases of floor care. Clarke makes a machine for every job, for every budget. There's a representative near you for free demonstration. Send the coupon below today!

HERE IS JUST PART OF THE CLARKE LINE:



CLARKE FLOOR MAINTAINERS

Job-fitted sizes for any application. Does six jobs: scrubs, waxes, polishes, steel wools, disc-sands and shampoos. Self-lifting wheels.



CLARKE WET AND DRY VACUUM CLEANER

Picks up water, dirt, dust. Quick-draining dump valve eliminates heavy lifting.



SALES AND
SERVICE BRANCHES
IN ALL
PRINCIPAL CITIES

Clarke

CLARKE SANDING MACHINE COMPANY
2410 Clay Street, Muskegon, Michigan

Please rush me hints on easier and faster floor care and more information on the following machines:
• Clarke Floor Maintainers..... Clarke Wet and Dry Vacuum Cleaner.....
Please arrange a free demonstration.

NAME _____

ADDRESS _____

CITY _____

ZONE _____

STATE _____

WHAT'S NEW . . .

Plastic Finish For Wood

Platon, a new pure phenolic plastic finish for wood surfaces, is described as having unusually high wear and corrosion resisting qualities. Containing no oil or similar substances, Platon is alcohol and moisture proof, acid resistant, fire retardant and resistant to the usual elements of corrosive wear. Surfaces finished with Platon are said to retain a high gloss for years and require no waxing or scrubbing.

Floors, furniture, interior finish and other wood surfaces can be finished with Platon which is applied by brushes, sprayers or dipping processes. It dries to a glossy, non-slippery finish in four hours and does not chip, crack or peel. Surfaces finished with Platon can be easily cleaned by wiping with a damp cloth. Floors finished with Platon are not slippery and the product can be used on desks to produce a hard resistant finish. Platon is available either colored or colorless in three grades: gloss, semi-gloss and flat. **Minnesota Platon Corporation, Dept. CUB, Pipestone, Minn. (Key No. 15)**

Dictating Machine

Magnetic tape is used in a new electronic dictating machine recently intro-

duced. This is an especially designed dictating system with magazine loading, known as the Permoflux Scribe. Magazines are interchangeable from one machine to another. Since the machine operates electronically, tape recordings can be used thousands of times without loss of tone quality and without surface noise or distortion. Magnetic tape can



be used over and over again in the Permoflux Scribe. Dictation, conferences and other recordings are wiped off the tape automatically when new material is recorded. The motor runs only when the machine is in actual operation and most of the action is automatic.

The single selector lever furnishes complete control of tape in record, listen, fast forward and fast reverse positions. Other features include exceptionally fast forward and rewind speeds, audible end-

of-tape indicator, accurate indexing, instantaneous foot pedal control, voice level indicator and automatic back spacer. A diffused light burns red when the machine is recording. The Permoflux Scribe has a microphone, speaker or headphone playback and is portable. **The Permoflux Corp., Dept. CUB, 4900 W. Grand Ave., Chicago 29. (Key No. 16)**

All-Weather Hydrant

Supply water is protected against contamination with the new non-freezing sanitary hydrant. It has no seep holes and functions at static water pressures ranging from 25 psi. to 130 psi. and at temperatures ranging from 100 degrees F. to minus 70 degrees F. A special rubber sleeve enclosed in the casing ensures operation during freezing or low temperature weather. Maximum flow of water is achieved by full pipe size areas throughout all passages in the hydrant. Efficient operation is ensured as the hydrant permits the maximum flow rate with a minimum pressure drop. The design of the hydrant is simple and rugged so that a minimum of maintenance is required. All working parts can be removed if required without disturbing the buried casing. **J. A. Zurn Mfg. Co., Dept. CUB, Erie, Pa. (Key No. 17)**

(Continued on page 84)

CROTTY MANAGEMENT

can solve YOUR DINING HALL PROBLEMS

Other colleges and prep schools have successfully delegated the operation of their student feeding facilities to Crotty Brothers Food Service.

This gives an immediate control of dining hall costs and relieves administration of all the other trials and tribulations. For, under supervisory direction, a complete Crotty-trained

staff takes over all the duties . . . functions efficiently as a school group to assure economical operation, excellent food and needed continuity of responsible management.

CROTTY

BROTHERS INC.

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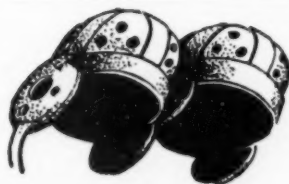
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Because Dolge's own process permits storage of BALMA at low temperatures or other adverse conditions without souring. Crystal-clear BALMA stays sweet and free-flowing to the last rich-lathering drop. It's delightful scent—derived from expensive perfume—is like the aroma of the finest cake soaps.

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Star guards

for school lockers

You get the finest in controlled locker protection when you specify Dudley Locks for your school. These locks, Master-Keyed or Master-Charted, have set a standard of school protection for thirty years. The unique Dudley Master Key is an added security feature. It can't be duplicated on the standard key-making machines used by most locksmiths.

Write for Catalog Folder with detailed data on locks shown here, and built-in, Master-Keyed S-540, the lock with 15-second combination change.



P-570
Master-
Keyed



RD-2
Master-
Charted

**DUDLEY LOCK
CORPORATION**

Dept. 1022, Crystal Lake, Illinois

Vol. 11, No. 4, October 1951

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Enjoy the peace-of-mind protection you get with Continental fence... the only fence made of KONIK steel. KONIK is an open hearth alloy steel with copper, nickel, and chromium added for extra strength and extra resistance to rust and corrosion. Write Continental or see our nearest representative for complete information on Continental fence.

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**CONTINENTAL
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WHAT'S NEW

Patterned Glass Door

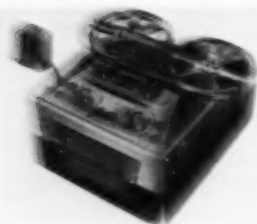
A new interior patterned glass door, which transmits a soft light while maintaining privacy between rooms, comes completely equipped and ready to hang. It is a single slab of $\frac{1}{2}$ inch thick Blue Ridge glass with Murales pattern on both sides and is designed only for interior use. The glass is easy to keep clean and attractive in appearance. The heavy, finished hardware includes a Saginaw lock and Stanley ball-bearing hinges. The door is made in standard sizes and is easily installed. The same pattern on both sides and the symmetrical location of hinges make the door completely reversible. The glass is heat-treated for strength and maximum resistance to thermal shocks or impacts. Full instructions for erection are furnished with each door. Libbey-Owens-Ford Glass Co., Dept. CUB, Nichols Bldg., Toledo 3, Ohio. (Key No. 18)

Portable Tape Recorder

Signal engineering research and carefully planned styling have gone into the new Duo-Speed Portable Tape Recorder which offers a number of new features. The new and different mechanism results in smooth, reliable operation. The completely re-styled cabinet is attractive

in appearance and provides a self-contained portable unit weighing only 27 pounds with all accessories.

The recorder offers speedy change for either 4 $\frac{1}{2}$ or 7 $\frac{1}{2}$ inch, plus super-speed rewind and forward speeds, with automatic amplifier equalization in either speed. An editing key permits correction of recordings on any section of the tape while playing. Other features include: magic eye recording indicator; interlock switch to prevent accidental erasure and tape spillage; Penton record and erase



heads to prevent tone distortion; lock for microphonic, radio or television; amplifier, speaker and amplifier and two hours continuous performance on 7 inch reel at 4 $\frac{1}{2}$ inches per second. The unit is available with dual track or single track heads for broadcast use. Penton Corporation, Dept. CUB, 221 E. Colfax St., Chicago 16. (Key No. 19)

(Continued on page 86)

Goldil Slide Carrier

A new streamlined auto-focusing two-way Goldil Slide Carrier is being introduced for the Goldil Manumatic 2 by 2 inch Slide Projector. The new carrier is nearly 100 per cent auto-focusing. A slide of any thickness can be dropped into the aperture without disturbing the slide being shown. As a slide is transported into the aperture, it is automatically fixed in its proper focal plane. Made of precision die-cast aluminum, the new carrier is extremely light in weight. Goldil Mfg. Co., Dept. CUB, 1220 W. Madison St., Chicago 7. (Key No. 20)

Floor Matting

Especially designed for use in corridors, aisles, in front of files, office machines and laboratory furniture and wherever personnel must stand in one place, Ant-Tred floor matting is constructed of sponge rubber with a resilient, long-wearing top surface. It does not stretch, mat or break down, is moth-proof and easily cleaned by vacuum or damp mop. It provides a soft floor covering which reduces fatigue and silence-footsteps. It is available in maroon and black, 36 or 48 inches wide. American Mat Corp., Dept. CUB, 1736 Adams St., Toledo 2, Ohio. (Key No. 21)

WALLMASTER Cleans Walls Faster at Less Cost!



Costing less than 50¢ a day to operate, the Wallmaster cleans any washable surface including painted rough brick, moulting, panelling and stippled walls three times faster than the bucket and sponge method.

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WEBSTER'S NEW COLLEGIATE DICTIONARY is an entirely new work, based on the by Webster's New International Dictionary, Second Edition, the "Supreme Authority," and is characterized by the same outstanding scholarship and accuracy. More than 125,000 entries; 7,500 terms illustrated; Hundreds of new words; 45 on end on denoting or style and meaning. Thumb index. G. & C. MERRIAM CO., Publishers, Springfield 7, Mass.

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Ideal two-pupil set for classrooms, dormitories, libraries. Combines convenience, functional beauty, maximum strength and rigidity, at moderate price. Table top is heavy, cored-plywood, durably lacquered. Chairs have monosteel frames, deep curved backs with self-adjusting lower rail, and plywood seats with specially designed supports that prevent flexing.

American Bodiform Tablet-Arm Chairs No. 16-001TA with 119 Aisle Standard



Unequalled for comfort, beauty, durability, housekeeping economy. Combine auditorium and lecture-room utility. Tablet-arm has ample surface, slightly pitched for writing ease, and folds safely, automatically under seat when not needed. Full upholstery improves acoustics. Seat rises automatically to $\frac{1}{4}$ safety-fold position when vacated.

American Pedestal Tablet-Arm Chair No. 472

Balanced-posture design with comfortable cradleform seat, 17" high. Solid, deep-curved back is especially useful for riser treads, to prevent use of seat as footrest by those in back. Tablet-arm is $23\frac{1}{4} \times 12$ ", sloping approximately $3\frac{1}{4}$ " within its length for extra writing comfort. Oval-shaped, rigid steel pedestal has $8 \times 11\frac{1}{2}$ " base. Metal parts have dipped, baked-enamel beige finish. Wood parts durably lacquered in light, natural wood finish. Supplied with or without book rack.



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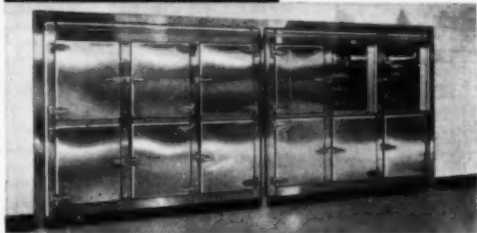
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prize-winning
kitchen of
**St.
Vincent's
Hospital**
Toledo, Ohio



Top picture above shows an exterior view of the recently-completed \$5,000,000 addition to St. Vincent's Hospital. Directly above are two 6-Door Stainless Steel HERRICK Pass-Through Refrigerators in the St. Vincent kitchen.

HERRICK-Equipped Hospital Kitchen Wins Grand Award in Fifth Annual Food Service Contest

In this year's nation-wide Food Service Contest sponsored by INSTITUTIONS Magazine, St. Vincent's Hospital in Toledo, Ohio, received a Grand Award for its excellent kitchen. This up-to-the-minute kitchen is typical of the hospital itself, whose eight floors house the very latest in modern medical equipment. • The Grand Award is also a worthy tribute to ten HERRICK Stainless Steel Refrigerators serving St. Vincent's new kitchen. By keeping foods fresh and wholesome, these HERRICKS play an important part in filling the dietary needs of St. Vincent's patients. You, too, will find HERRICK Refrigerators unmatched for complete food conditioning. Write today for the name of your nearest HERRICK supplier.

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WHAT'S NEW . . .

Heavy Duty Mimeograph

A new high speed heavy duty table model mimeograph with built-in electric drive has been announced by A. B. Dick Company. The new machine has a feed table capacity of 500 sheets of substance 20 paper and is almost entirely automatic in operation. High speed production is possible with the variable speeds.

Other features of the new mimeograph include quick loading feed table, copy stacker receiving tray, finger tip controls for vertical, lateral and angular copy position adjustments, and new quick drying inks. The new inks dry almost immediately upon contact with the paper and permit immediate handling of copies. **A. B. Dick Company, Dept. CUB, 5700 Touhy Ave., Chicago 31. (Key No. 22)**

Electric Snow Remover

Snow is tossed up to 20 feet to either side with the new Sensation Electric Snow-Blo. Direction of the throw of snow is determined by a reverse rotation switch on the handle which is located for quick operation. The machine is powered by a 1/2 h.p. capacitor motor and the chassis of the Electric Snow-Blo is constructed entirely of steel with an open bottom friction-fed sidewalk scoop. A

grounding drag chain is used to eliminate electrical shocks. The two-way discharge feature makes the unit especially adaptable in clearing walks and drives bordered by a wall or fence. The machine weighs 63 pounds and has an adjustable handle to fit the operator's height, plastic handle grips and 100 feet



of No. 14 plastic cord. **Sensation Mower, Inc., Dept. CUB, Ralston, Neb. (Key No. 23)**

Masonry Wall

A new type insulated cavity masonry wall, known as the SCR Insulated Cavity Wall, features a new type low cost pouring insulation. The new masonry wall needs no furring, lathing or plastering on the interior wall surface but can be plastered direct when desired. The wall is built in two sections, interior

(Continued on page 88)

and exterior, with a hollow space in between which helps to prevent heat loss and penetration of moisture. The insulation used in the new SCR Insulated Cavity Wall is a fibrous type of insulation designed to be poured into the cavity. The Institute states that no changes are required in present cavity wall structural design or building code construction requirements in installing the new wall. **Structural Clay Products Institute, Dept. CUB, 1520 18th St. N. W., Washington 6, D. C. (Key No. 24)**

Curtain Track

A new curved curtain track, known as Steelite Cyclorama, is being introduced for stage installations where versatile settings are desired. To meet the need for a curved track, as specified in many institutions where the size of the stage is increased or decreased at intervals, the Steelite Cyclorama is shaped as a slotted tube and is fully enclosed except for the slot in the bottom. It can be furnished to any degree curve up to 90 degrees and with a 12 inch radius. It is designed with the "cord-in-track" feature to eliminate the possibility of jamming at the curves and to allow the curtain carriers to operate freely around the curves. **Automatic Devices Co., Dept. CUB, Newark 5, N.J. (Key No. 25)**

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- brings to life colors which have become dull or faded. Won't soften or bleed colors.
- saves maintenance time.
- **SAFETY MEN APPROVE IT** . . . with an "anti-slip" coefficient of friction 50% greater than minimum insurance requirements (non-flammable) (U/L).
- **FLOORING CONTRACTORS RECOMMEND IT** . . . contains no solvents, caustic, acids, other ingredients to injure or wear out sensitive surfaces.
- **MAINTENANCE MEN PRAISE IT** . . . keeps floors in A-1 condition at all times with only half the work.
- **ARCHITECTS SPECIFY IT** . . . for floors of greater beauty at a minimum cost to clients.
- **RUBBER FLOORING MANUFACTURERS ASSOCIATION ENDORSE IT** . . .
- resists deterioration from spillage as alcohol, gasoline, mineral spirits, paraffin oil.
- is not harmed by acid or alkaline salts (present in certain floorings), staves off obsolescence of floor. HIL-TEX is highly resistant to ozone or fading action of Ultra Violet Light.

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WHAT'S NEW...

Product Literature

• The story of "The First Fifty Years" of the Federal Reserve Bank, 1023 Telegraph Rd., Toledo 12, Ohio, is told in an attractive brochure recently released. The booklet is fully illustrated with old as well as new photographs. (Key No. 26)

• A full-line catalog of Sturtevant Division equipment has been released by Westinghouse Electric Corp., Sturtevant Division, 200 Broadway St., Boston 36, Mass. Equipment for cooling, heating, dehumidifying, cleaning, filtering and circulation of air is covered in the 16 page Catalog SA 6692. (Key No. 27)

• Attractive photographs illustrate the use of Day Brite lighting fixtures in college libraries, laboratories and school classrooms in the booklet recently released by Day Brite Lighting, Inc., 5011 Bulwer Ave., St. Louis 7, Mo. Entitled "Day Brite lights the way..." for students... across the U. S. A., the booklet presents factual information on lighting for classrooms and other areas and discusses Day Brite research on school lighting. (Key No. 28)

• A new full color catalog on Hood Rubber Tile has been published by the B. F. Cleveland Paving Division, Watertown 22, Mass. The catalog contains suggested floor designs, color charts and illustrations of installations of Hood Rubber Tile, with information on sundries and supplies that can be used with this flooring. (Key No. 29)

• A complete 1053 page catalog of radio, television, sound and electronic equipment distributed by Mils Radio & Electronics Corp., 200 Greenwich St., New York 7, is now available to college administrators and purchasing agents. The book is fully illustrated, contains prices and discounts and is a valuable reference guide. It provides descriptive information on the full line of electronic equipment for school and college laboratory requirements carried by the company. (Key No. 30)

• How asphalt tile floors in schools can be cleaned, waxed and polished in one operation is discussed in a new bulletin issued by C. H. Tennant Co., 2525 N. 2nd St., Minneapolis 11, Minn. The two page pamphlet gives information on a new type floor machine which eliminates old operations and saves time and wear costs. (Key No. 31)

• A four page illustrated bulletin has been published by Calgon, Inc., Hagen Bldg., Pittsburgh 30, Pa. on "Spotless Silver with Calgon Silver Rinse." The bulletin describes a simple method to foil the machine dishwashing, that prevents formation of water spots and leaves silver dry and sparkling without hand towel drying. (Key No. 32)

• A new Sanitation Handbook has been published by Huntington Laboratories, Inc., Huntington, Ind. It presents information about the maintenance of modern buildings and describes many of the sanitation and maintenance products manufactured by the company. The new book is prepared as a quick reference for custodians and others responsible for maintenance. (Key No. 33)

• A pamphlet entitled "A Public Record Is a Public Trust" has been issued by Remington Rand Inc., 315 Fourth Ave., New York 10. The brochure presents pertinent tips on equipment designed to protect files and other records in case of fire. It also presents a series of "Fire Protection Don'ts" regarding public records. (Key No. 34)

• Complete information on Webster Moderator Control Systems and equipment for steam heating is provided in a group of five bulletins recently released by Warren Webster & Co., Camden 5, N. J. Subjects covered include data on electronic pressure differential control system for continuous steam flow, pulsing flow control, motor-operated throttling type main steam control valve, motor-operated valves for shut-off service and ten principal types of metering orifices for use in Moderator Systems. (Key No. 35)

• A complete window shade catalog has been issued by Luther O. Draper Shade Co., Springfield, Ind. Entitled "Correctly Controlled Daylight," the 20 page catalog illustrates the use of both Draper Night-Saving Translucents and Durable Darkening Window Shades. The close correlation between the tan and black installations is discussed and illustrations are used to show how the shades cover any sized windows. The catalog is profusely illustrated and gives detailed information on the various types of shades and shade cloth manufactured by the company and their uses. (Key No. 36)

• Educational data sheets, giving such information as weights, dimensions, spreading surfaces, handle lengths and related information on its wet mops, dust mops and applicators, are now available from the American Standard Mfg. Co., 2505 S. Green St., Chicago 8. Information as to how a mop wears out and what gives it long life are some of the interesting facts included in the data sheets. (Key No. 37)

Methods Manuals

The revised edition of the booklet, "Sound Absorption Coefficients of Architectural Acoustical Materials," is now available from the Acoustical Materials Association, 40 E. 55th St., New York 22. Published periodically, this bulletin is designed to furnish architects, builders and administrators interested in acous-

tical materials with reliable technical data on sound absorption coefficients of acoustical materials and with information on the uses of such materials. Bulletin XIII has been prepared by the Association, which is an organization of manufacturers of architectural acoustical materials. (Key No. 38)

A new booklet has been prepared by Jean Lesparre, directing chef of the Armour and Company research kitchens, on the subject of deep fat frying. Entitled "Helpful Hints for Better Deep Fat Frying," the booklet tells how to prepare frying batters and includes a frying time and temperature chart for various foods. The booklet is available without charge from the Hotel Department, Armour and Company, Chicago 9. (Key No. 39)

"More Brilliant Projection" is the title of a new booklet concerned with the problem of assisting those using projectors to achieve more nearly perfect projection. The booklet contains up-to-date technical data presented in non-technical language and is offered by Radian Mfg. Corp., 1204 S. Talman Ave., Chicago 8. (Key No. 40)

The 3rd Edition of the Catalogue and Design Book of Terrazzo and Mosaic is now available from the National Terrazzo & Mosaic Assn., Kass Bldg., 711 Fourteenth St., N.W., Washington 5, D.C. The loose-leaf book contains 136 pages and tells the complete story of Portland Cement Terrazzo. Large-sized, two color Terrazzo sample plates are featured which are easily removable from the binder to facilitate comparison and selection of a wide range of color combinations. The book includes data for grounded grill, non-slip, radiant heating and outdoor installations. It is available from the association offices at \$10 per copy. (Key No. 41)

Suppliers' News

American Bitumuls & Asphalt Co., 200 Bush St., San Francisco 4, Calif., is a newly formed nationwide company for the manufacture and sale of various types of paving asphalt and special asphalt products. The company, which formerly operated only in the territory east of the Rocky Mountains, is acquiring the assets of Stancal Asphalt & Bitumuls Co., which has operated in the west. The organization will have 14 district offices with headquarters in San Francisco.


The Powers Regulator Company, manufacturer of automatic temperature and humidity controls, announces removal of its general offices and factory from 2720 Greenwood Ave., Chicago, to a new modern plant at 3400 Oakton St., Skokie, Ill.

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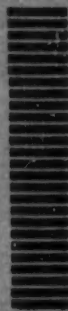
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ADVERTISEMENTS

42	43	44	45	46	47	48	49
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NAME	TITLE		
INSTITUTION			
ADDRESS	CITY	ZONE	STATE

100 Vestal, Inc. Floor Maintenance	66
101 Vulcan-Hart Mfg. Company Kitchen Equipment	16
102 Wayne Iron Works Steel Grandstands	76
103 Webster Electric Company Program & Sound Distribution Systems	73
104 Weis Mfg. Company, Inc., Henry Cabinet Showers	79
105 Weston Electrical Instrument Corp. Electrical Instruments	87
53 Wickwire Spencer Steel Division of The Colorado Fuel & Iron Corp. Steel Fence	80



Always at Hand.

WHEREVER FOOD IS...

FOOD, KITCHEN AND BAKERY MACHINES BY HOBART—you find them in almost every kitchen in the world! What better proof of value is there? You can't beat the fact that the great food service industry gives Hobart an endorsement by purchase unequaled in the industry.

If you don't know the Hobart line (or *all* of it) look first at the Hobart products themselves. Look at specifications, performance data—at machines uniquely *clean in design and clean in performance*. Just as important—check the great record of your dependable Hobart representative. And then, just ask any Hobart-using friend about his experience with our line.

Imagine the ease of planning installation, with the *complete* Hobart line to draw on! Imagine the feeling of security offered by your established Hobart representation. Well—why just imagine? You never had better reasons to talk to Hobart than right now! . . . The Hobart Manufacturing Company, Troy, Ohio.



Trade Mark of
Quality for
over 50 years

Hobart Food Machines

The World's Largest Manufacturer of Food, Kitchen and Bakery Machines

CHOOSE HOBART—AND THE MODEL BUILT FOR YOU



DISHWASHERS



MIXERS



PEELERS



FOOD SLICERS



FOOD CUTTERS



MEAT CHOPPERS



MEAT SAWS



TENDERIZERS



COPPER MILLS



SCALES

FIRST with major cooking improvements today

Now! Hotpoint cuts fat costs in half!



Another famous **HOTPOINT FIRST!**

It's the Calrod® Immersion Heating Unit that pours more heat, under better control, into Hotpoint fry kettles faster!

What can this exclusive Hotpoint development mean to you?

- ... Fat savings up to 60%!
- ... No transfer of food flavors!
- ... Up to 50% more food production from the same size kettle!
- ... Grease-free, easily digested foods that build repeat business!
- ... Faster preheating and quicker recovery than any fry kettle you have ever owned!

See how far your present fry kettle is from these Hotpoint performance and profit standards by taking the simple "French Fry Test" shown below.

Tests like this and hundreds of actual case histories prove you can count on Hotpoint fry kettles (the big HKG46, the medium HKG4 or the counter size HK3) to out-save and out-perform every fry kettle on the market today!

It's all because...

Hotpoint *invented cooking
the modern way!*

Try This French Fry Test Yourself!

	TEST	YOUR KETTLE	HOTPOINT
1	Does your fry kettle preheat to cooking temperature in less than 8 minutes? (Or 12 minutes for kettles of 60-lb. capacity and up?)	(YES or NO)	YES
2	Does fat-thermometer reading show fat temperature within 8° of temperature set on control—both at the start and finish of your frying operation?		YES
3	Can you cook 1 lb. of 3/4" french fries for every 5 lbs. of kettle fat capacity in 6 minutes at 365°?		YES
4	At the end of 6 minutes are potatoes golden-brown, with that just-right taste, and grease-free?		YES

Any NO above means you are not getting full Hotpoint standard performance. More than one NO means your deep frying profit and production picture may be seriously impaired. For the remedy, call your nearest Hotpoint dealer or fill out the coupon at right.

FOOD SERVICE EXPERTS
AGREE

HOTPOINT FIRST

with most important cooking improvements today!



J. M. Holcomb, Jr.
President
Birling Cafeterias
Birmingham, Ala.



G. Konnerman, Jr.
President, Industrial
Food Service, Inc.
Cincinnati, Ohio



F. T. Hilliker, Presy.
Frank T. Hilliker &
Associates
Design Consultants
St. Louis, Mo.



Dan Clark
Clark's Lunch
Rooms, Inc.
South Bend, Ind.



David Frisch
Vice President &
Gen. Mgr., Frisch
Enterprises, Inc.
Cincinnati, Ohio

The jury of food-service authorities shown above voted Hotpoint First in Commercial Cooking for such major exclusive developments as:
Calrod Heating Units • Hotpoint SUPERange (with Recipe Robotrol) • Complete Custom Matched Counter Line • First Commercial Roaster (Dutch Oven-ROASTER) • The Magnificent Glamour Line



HOTPOINT INC.
Commercial Equipment Dept.
211 So. Seely Ave., Chicago 12, Ill.

Check One:

- ☐ We're convinced! Please send a representative to tell us more.
- ☐ Please send literature on Hotpoint Fry Kettles.

Name _____

Firm _____ Title _____

Address _____

City _____ State _____